

A MANAGEMENT PROGRAM FOR MARYLAND'S ESTUARIAL AREAS

DRAFT

Appendices A-T

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1977
v.2

Volume II March 1977

A MANAGEMENT PROGRAM FOR MARYLAND'S COASTAL AREAS

Volume II March 1977

DRAFT

Appendices A-T

U. S. DEPARTMENT OF COMMERCE NOAA
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Department of Agriculture
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Hygiene
Department of Transportation

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Baltimore County
Calvert County
Caroline County
Cecil County
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The preparation of this program document was financed in part by a grant from the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, under the provisions of the Federal Coastal Zone Management Act of 1972.

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Appendix A

Supplemental Boundary Information

Maryland's Boundary Identification Process

Maryland's draft boundary approach was presented for comment to the citizens of Maryland's coastal zone at five regional public meetings after a period of in-house review. At the same time, it was presented to a subcommittee of the Chesapeake Bay and Coastal Zone Advisory Commission and Supplemental Committee. Based on the comments received through this review process the boundary approach was revised and presented to the whole Chesapeake Bay and Coastal Zone Advisory Commission and Supplemental Committee for comments and approval. The result is the Coastal Zone Boundary approach described in Chapter III. Below is a description of Maryland's Boundary Identification Process.

During the development (305) phase of the Coastal Zone Management Program, the Coastal Zone Unit has used a planning boundary to define the area within which its basic inventory work would be carried out. The planning boundary has been defined as the inland boundary of the 16 counties bordering the Chesapeake Bay, the Atlantic Ocean, and the Potomac River as far as the municipal limits of Washington, D. C. The planning boundary was chosen to include an area broad enough to encompass all coastal resources and activities which might affect them.

The first step Maryland took in determining a management boundary was to map those areas required by the Act and regulations to be included within the coastal zone. The areas mapped included (1) the tidal waters of the State as determined by the Maryland Natural Resources Police, Marine Division; (2) all salt marshes, tidal wetlands, transitional and intertidal areas as defined under Maryland's Wetlands Act of 1970, and all beaches and associated dunes as shown on the County Soil Surveys.

Maps of these factors are on file in the offices of the Energy and Coastal Zone Administration. Several other factors were mapped at the same time. These included areas of potential tidal inundation, certain lowland coastal plain soils, and the upland areas draining directly into the tidal waters of the State.

These factors were considered together as a potential bio-physical definition of Maryland's Coastal Zone. Several alternative boundaries were considered in defining the management area of the Program before the Coastal Zone Boundary as described above was adopted. These included the Fall Line, which divides the Coastal Plain from the Piedmont Province and also determines the extent of tidal influence for many Maryland rivers. Also considered was the 305 planning boundary or the inland boundary of all the coastal counties. Each of these alternative management boundaries has its own strengths and weaknesses.

A management boundary based on the natural features described above addresses partially the problem of determining the uplands whose use may have a direct and significant impact on Maryland's coastal waters, but at the same time was not broad enough to ensure that the impacts of major facilities lying just outside this line would be addressed. In addition the line would be difficult to map accurately enough to determine whether or not an individual property owner was located within the management boundary.

In some counties the Fall Line also does not adequately define an area which would include direct and significant impacts from all activities. In many cases by using the Fall Line, entire counties would be included in the management boundary, but only relatively small portions of the northern counties bordering the Chesapeake Bay would be included.

The approach of using the inland boundary of Maryland's coastal counties has the advantage of treating all the counties equally. This line also corresponds to the administrative boundary defined in Maryland's Coastal Facilities Review Act of 1975 which is administered by the Maryland Department of Natural Resources. This line should be adequate to address the impacts of major facilities, as well as the location of alternative sites for the facilities, when they need not be sited immediately adjacent to the State's coastal waters. The disadvantages of this line are (1) that it is broader than necessary to address impacts to coastal waters which result from the activities associated with the many small projects occurring in the coastal zone and (2) it does not reflect the actual bio-physical features which characterize the coastal zone.

The approach that was decided upon for defining Maryland's Coastal Zone Management area was one that combined the characteristics of several boundary alternatives, resulting in the two-level boundary definition described in Chapter III.

There are several advantages to this two-level boundary system. By including the whole area of each coastal county in the Coastal Zone, the problem of impacts and of suitable sites for major facilities can be adequately addressed. Moreover, this boundary is consistent with the administrative boundary for the State's Coastal Facilities Review Act, which addresses these problems for oil related facilities. Impacts from major facilities may be so great that they may have a significant impact on coastal waters regardless of where in a coastal county they are sited. The federal consistency provision of the federal Coastal Zone Management Act (see Chapter VII) will be applied uniformly throughout a county. By designating the broader areas as the coastal zone all areas such as tidal wetlands and transitional and intertidal areas, which are required to be included in the coastal zone, will fall within the coastal zone boundary.

There are several reasons for designating an area of focus in each of the coastal counties. The concept recognizes the fact that both wetlands and upland areas lying adjacent to the coastal waters of the State are the most sensitive to environmental impacts. It is in these areas that projects or activities of relatively small magnitude may have a significant impact on the State's coastal resources. These same projects located further inland may have little or no impact on the coastal waters.

An area of focus based on the 100-year flood plain, is tied to a legally defined line that corresponds with the boundary established under Maryland's Flood Control and Watershed Management Act of 1976. It also allows for a more reasonable application of the management program by geographically defining the area where the majority of issues related to the coastal zone arise. This allows state and local governments to focus their efforts on the area where they are most needed to solve coastal related problems.

The criteria used to delineate an area of focus for Anne Arundel County, Baltimore County, and the City of Baltimore, and Harford County, are somewhat different from those used in the more rural counties of the State. Because these counties are more heavily urbanized than the other coastal counties and face many unique problems, they have been treated as a separate group. The coastal zone planning process for these counties is described in more detail in Chapter VI.

In addition to the 100-year flood plain, other factors considered were the 20-foot contour interval, a 1,000 yard setback, shoreline industrial and residential sectors and areas where coastal site specific issues have been identified.

A broader definition of the boundary was not used for several reasons. First, it is clearly the intent of the federal Coastal Zone Management Act and the regulations promulgated thereunder that the boundary not be any broader than is necessary to implement a State's Coastal Zone Management Program. The bywords are found in the statutory definition of the landward portion of the coastal zone which states that it "extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters", (Section 304(a)). The bywords are shorelands, direct and significant impact and coastal waters. The interpretation is that the coastal zone should only include those lands adjacent to coastal waters where any existing or potential use will have a "direct and significant impact on the coastal waters". The statutory definition when read in full, further establishes this link between the shoreland and the coastal waters. The Coastal Zone Management Program approval regulations further specify that the area included within the management boundary must not be so broad that "a fair application of the management program becomes difficult or capricious", (Section 923.11(b) (2)).

It is the opinion of the Coastal Zone Unit that making the management boundary broader than the inland boundary of the coastal counties would make the coastal zone too broad for the Program to be implemented in a fair and consistent manner. One purpose of defining an area of focus within the coastal zone is to ensure that the Program is implemented in a reasonable manner within the already broad coastal zone boundary, and that the area included is manageable. It is not the intent of the Coastal Zone Unit to develop a program that is defined by the exception rather than the rule. While the Unit recognizes that there is a possibility of a project occurring outside the coastal counties that has a direct and significant impact on coastal waters, it feels that any such activity would be addressed by existing authorities within the State. In the event that there would appear to be a significant impact on coastal waters, the Coastal Zone Unit would not hesitate to ask the Secretary of the Department of Natural Resources to have those impacts addressed. The

Coastal Zone Unit will be involved in program review (see Chapter II) to ensure that other state programs such as 208 planning are consistent with the Coastal Zone Management Program's goals and objectives. This review will include programs that cover an area greater than the coastal zone, but may still affect it. In any case, Maryland cannot go outside its own State boundaries to implement the Coastal Zone Management Program. Although the federal Coastal Zone Management Act encourages inter-state cooperation, it does not intend for one state to regulate another's activities. The Coastal Zone Management Program does give Maryland a forum in its neighboring states through which it can express its concerns about possible activities that might affect Maryland's waters.

Listing of Excluded Federal Lands by County

ANNE ARUNDEL COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
53	1	Fort George G. Meade
53	2	National Security Agency
55	3	U. S. Naval Hospital - Annapolis
55	4	U. S. Naval Academy - Dairy Farm
55	5	U. S. Naval Academy - Annapolis
55	6	U. S. Naval Ship Research & Development Ctr.
		U. S. Naval Station - Annapolis
		U. S. Naval Radio Transmitting Facility - Annapolis
53	7	Army General Services Adm. Depot
61	8	U. S. Coast Guard Depot
52	9	U. S. Air Force Transmitter Station
53	10	U. S. Military Sewage Treatment Fac.
67	11	Patuxent Wildlife Research Ctr. (part in P. G. Co.)
50	12	U. S. Government Site - Sharonville
50	13	U. S. Government Site - Sharonville
50	14	District Training School
53	15,16	Nike Site 26
53	17	Nike Site 25 - Queen Anne Road
66	18	Baltimore-Washington Parkway
61	19	Sandy Point Shoal Light
61	20	Thomas Point Light Station
61	21	Seven Foot Knoll Light
68	22	U. S. Post Office - Annapolis
61	23	U. S. Coast Guard Station

Federal Lands Owning Code:

50 Federal Government (General	60 Department of Transportation
51 Department of Agriculture	61 Coast Guard
52 Department of Air Force	62 Nuclear Regulatory Commission
53 Department of Army	63 Federal Communications Commission
54 Corps of Engineers	64 General Services Administration
55 Department of Navy	65 National Aeronautics and Space Administration
56 Department of Commerce	66 Department of Interior
57 Department of Health, Education and Welfare	67 Fish and Wildlife Bureau
58 National Institute of Health	68 Postal Service
59 Social Security Administration	69 Veteran's Administration
	70 Department of Justice
	71 Department of Treasury

BALTIMORE CITY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
50	1	Baltimore National Cemetery (Part in Balto. Co.)
50	2	Loudon Park National Cemetery
53	3	Fort Holabird
64	4	U. S. Quarantine Sta. - Curtis Bay
66, 55	5	Fort McHenry and Naval Reserve Training Ctr.
53	6	USARC - Sheridan
53	7	USARC - Turner
69	8	U. S. Veterans Hospital
55	9	Marine Corps Reserve Training
57	10	U. S. Public Health Service Hospital near JHU
57	11	U. S. Public Health Service Hospital
57	12	U. S. Public Health Service Hospital
57	13	U. S. Public Health Service Hospital
57	14	U. S. Public Health Service Hospital
57	15	U. S. Public Health Service Hospital
68	16	U. S. Post Office
68	17	U. S. Post Office
50	18	War Memorial
54	19	Ferry Bar Site
61	20	Brewerton Channel Light
64	21	U. S. Custom House
70	22	Court House
68	23	Parcel Post Sta. - St. Paul Street
64	24	Federal Office Building
64	25	Goucher College

BALTIMORE COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
52	1	Halethorpe - A. F. Plant
50	2	Granite
53	3	Aberdeen Proving Grounds (Part in Harford Co.)
69	4	Fort Howard Veterans Hospital
59	5	Social Security Administration
50	6	Baltimore National Cemetery (Part in Balto. City)
61	7	Craighill Channel Upper Range Rear Light
61	8	Craighill Channel Range Front Light
61	9	Craighill Channel Light
61	10	Fort Carroll Light
66	11	Hampton National Historical Site
68	12	U. S. Post Office - Catonsville
68	13	U. S. Post Office - Dundalk
68	14	U. S. Post Office - Towson
64	15	Bengies Federal Depot - Middle River
53	16	Nike - Washington Baltimore 03
53	17	Greenspring - Army Reserve Ctr.

CALVERT COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
55	1	Naval Testing Ctr. - Solomons
55	2	Naval Research Lab. North Beach & Chesapeake Bay Div.
61	3	Cove Point Light Station
68	4	U. S. Post Office - Prince Frederick

CAROLINE COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
68	1	U. S. Post Office - Denton

CECIL COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
55	1	Naval Training Center - Brainbridge
69	2	U. S. Veterans Hospital - Perryville
54	3	U. S. Reservation - Veazy Cove, Bohemian Rive
54	4	U. S. Reservation - C & D Canal
54	5	C & D Disposal Area - Sassafras River
54	6	C & D Disposal Area - Elk R. - Near Port Herman
54	7	C & D Disposal Area - Cabin John Creek
54	8	C & D Disposal Area - West View Shores
68	9	U. S. Post Office - Elkton
68	10	U. S. Post Office - North East
61	11	Turkey Point Light

CHARLES COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
53	1	East Coast Radio Receiving Sta. - LaPlata
55	2	Naval Ordinance Sta. and Research Lab. Ind. Hd.
52,55	3	Blossom Proving Grounds Naval Research Lab. - Upper Cedar Pt.
61	4	Maryland Point Light
53	5	Nike 44
55	6	NDW Housing - LaPlata
55	7	Naval Ordinance Station - Government Railroad
55	8	Naval Research Laboratory - Pomonkey
55	9	NDW Housing - Waldorf
55	10	Naval Research Lab. - Waldorf
55	11	Naval Surface Weapons Ctr. - Range Sta.#12
55	12	Naval Research Laboratory, Md.

DORCHESTER COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
67	1	Blackwater National Wildlife Refuge
67, 55	2	Bloodsworth Island
61	3	U. S. Coast Guard Station - Vienna
68	4	U. S. Post Office - Cambridge
61	5	Cedar Pt. Light
61	6	Sharkfin Shoal Light
61	9	N. Bloodsworth Island
55	10	Chinch Island
55	11	Sharps Island

HARFORD COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
53	1	Aberdeen Proving Grounds and Tank Prov. Area
53	2	Edgewood Ars. (APG) and Atkisson Res.
68	3	U. S. Post Office - Aberdeen
66	4	Susquehanna Nat. Wildlife Refuge
68	5	U. S. Post Office - Bel Air
68	6	U. S. Post Office - Havre de Grace
61	7	Havre de Grace Light
61	8	Fishing Battery Light

KENT COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
67	1	Eastern Neck Is. National Wildlife Refuge
68	2	U. S. Post Office - Chestertown
53	3	Nike - Washington-Baltimore 30-31

PRINCE GEORGE'S COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
52	1	Andrews Air Force Base
52	2	
53	3	
53	4	Suitland Annex
55	5	Naval Ordinance Lab.
55	6	Recon. and Tech. Suppt. Ctr. - Suitland
66	7	Fort Washington Forest
51	8	National Agricultural Research
51	9	U. S. Bureau of Plant Industries (A.B.C.)
66	10	Patuxent Wildlife Research Ctr. (part in A.A. Co.)
51	11	U.S.D.A. Plant Introduction Station

PRINCE GEORGE'S COUNTY
(Cont'd.)

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
66	12	Greenbelt Park
65	13	Goddard Space Flight Ctr.
55	14	Naval Reservation Radio Station
66	15	Suitland Parkway
61	16	
60	17	Woodrow Wilson Bridge
71	18	Fed. Law Enforcement Training Ctr.
53	19	FBIS Monitoring Station - Oxon Hill
53	20	Nike 35
55	21	Nike 44
66	22	B-W Parkway
52	23	
55	24	Naval Reserve Center - Adelphi
55	25	Center Building - Hyattsville

QUEEN ANNE'S COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
53	1	National Security Agency - Kent Island
68	2	U. S. Post Office - Centreville

ST. MARY'S COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
53	1	Point Lookout Confed. Ctr.
55	2	Patuxent Naval Air Test Ctr. - Lexington Pk.
55	3	Electronic Sys. Test & Eval. Fac.
61	4	Piney Point Light & Coast Guard Station
61	5	Point No-Point Light Station
55	6	Chesapeake Theodolite Station
55	7	Bay Forest Theodolite Station
55	8	Cedar Point Lighthouse
55	9	Naval Air Test Center, Government RR.

SOMERSET COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
67	1	Martin National Wildlife Refuge
61	2	Crisfield Coast Guard Station
68	3	Crisfield Post Office
61	4	Great Shoals Lt.
61	5	Solomon's Lump Lt.
61	6	L. Annessex R. Lt. 7
61	7	

TALBOT COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
67	1	U. S. Fish & Wildlife Service - Oxford
68	2	U. S. Post Office - Easton
61	3	U. S. Coast Guard - Tilghman Is. Sta.
61	4	Choptank River Light
56	5	Nat. Oceanic Atmos. Adm. - Oxford

WICOMICO COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
64	1	U. S. Post Office - Salisbury

WORCESTER COUNTY

<u>Owning Authority</u>	<u>Property Number</u>	<u>Property Description</u>
66	1	Assateague Island National Seashore & Chincoteague Nat. Refuge
61	2	U. S. Coast Guard Station - Ocean City
54	3	Ocean City Inlet
68	4	U. S. Post Office - Pocomoke City



ANNE ARUNDEL COUNTY

ANNAPOLIS, MARYLAND 21401

OFFICE OF PLANNING AND ZONING

ANNE ARUNDEL COUNTY COASTAL ZONE MANAGEMENT AREA OF FOCUS

The Planning Study Area (PSA) for Anne Arundel County was developed by the Baltimore Metropolitan Coastal Zone Study Unit to focus the study on a particular area of land exhibiting such characteristics that it could be classified as a "coastal zone". In determining these characteristics, the study was guided by two requirements of the Coastal Zone Act: (1) to include only the area where shoreland uses have a direct and significant impact on Coastal waters, and (2) to include those estuarine waters which contain a measurable quantity of sea water. Transitional and intertidal areas, salt marshes, wetlands and beaches were also required to be included. The following criteria were applied in developing this Planning Study Area:

A. Geographic factors

1. The established shoreline as shown on U. S. Geological Survey U.S.G.S. maps;
2. The established high mean water shoreline U.S.G.S.;
3. The open water boundary delineated on the U.S.G.S. maps;
4. The 20 foot contour line and area below that line;
5. The 100 foot contour line.

B. Natural Factors

1. The inland tidal surge points at selected rivers and streams as designated by the Maryland Marine Police;
2. All tidal wetlands identified by Maryland Department of Natural Resources;
3. Coastal soils and bedrock geology;
4. Areas of intermittent flooding;
5. Existing drainage basins.

C. Administrative and Cultural

1. Significant roads and rail alignments;
2. City and County administrative boundaries;

3. Census tracts, election districts and regional planning districts;
4. Community and social centers that are oriented to the coastal zone;
5. Present land use patterns.

Within this Planning Study Area, a Primary Impact Zone (PIZ) was designated on the basis of a judgmental decision, namely, the 1,000 yard setback (.6 miles) from mean high water. This Impact Zone is only slightly smaller than the study area. While there is relatively little difference in size, the PSA was defined by highways, census tracts and other cultural boundaries to form an integral unit; the PIZ does not form as integral a unit because it was defined by a setback. Also, the PSA was defined by thorough analysis of geographic, natural and administrative factors while the PIZ was subjectively defined. Therefore, the PSA is the more appropriate unit for purposes of coastal zone management.

On June 16, the Anne Arundel County Coastal Zone Commission, which the local citizen group charged with reviewing the program, made recommendations on the PSA. They approved the boundary with the inclusion of an additional area encompassing several census tracts containing the headwaters of the Severn River. On December 8, the Commission recommended use of the expanded PSA as Anne Arundel County's area of focus for purposes of the state's coastal zone management boundary. The County concurs with their recommendations.

Appendix B

Recreational Boating Study

Purpose

The tidal waters of Maryland are priceless recreational resources. They are also unique estuarine ecosystems, essential navigation routes, and valuable assets for waterfront land, public and private. The extent of the increase in recreational boating activity and facility construction in recent years has raised questions concerning observed and potential congestion, possible impact on both estuarine natural resources and on commercial shipping and fishing activity, and the needs of the growing boating public for improved access and activity opportunities.

In response to growing boating congestion on the bays, the Maryland Senate in 1973 adopted Joint Resolution 20, calling for a " 'needs study' program to help alleviate the present and future problems dealing with the State's waterways". In November, 1974, the Department of Natural Resources contracted for the performance of a study to identify and analyze problems related to the use of Maryland's tidal waters by recreational boaters and to develop a capacity planning framework for department use in formulating solutions to identified problems.

Scope

The Study scope was limited principally to recreational boating as such and has not been designed to conduct independent research relative to subjects such as the field assessment of environmental effects of boating, or site specific assessment of road access problems and potentials, although both areas of concern are of importance either regionally or locally. The study report, therefore, in addition to developing specific planning and management recommendations relative to boating needs and effects, articulates a planning process and a management strategy which will allow Maryland's state, county and local administrators, as well as the private boating sector and concerned individuals, to consider problems and alternative solutions systematically, as they emerge or are proposed.

Methodology

Existing problems related to congestion on the water surface and the potential for conflict with other water-oriented activities were analyzed using

a spatial boating capacity approach. Through qualitative surveys of boater perceptions and Maryland police observations, consultation with the state agencies and personnel currently responsible for recreational boating in Maryland, and analyses of accident loci, major congestion loci were identified. Estimates of the number of boaters using the various sub-bay water body units were made from a survey of trailer boat owners and through analysis of the Boating Administration's registration data on water-stored craft. Water body physical characteristics and the operational and surface requirements of boating activity types were analyzed to formulate spatial boating capacities for sub-area geographical units, which were then compared to the estimates of actual levels of boating activities to determine the degree of over utilization or existence of reserve capacity in each unit. Results were compared with the qualitative analyses to test the validity of the approach.

Actual field research on relationships between boating-related causative factors and environmental effects and impacts was not conducted. A review of the relevant literature was undertaken to determine the degree to which effects and impacts could be definitively attributed to recreational boating activities and facility development and to determine if formulation of sub-area carrying capacities based on ecological sensitivities as well as spatial determinants was feasible.

Information relevant to both user-related concerns (congestion loci and water body use intensities) and environmental sensitivities has been delineated on the county scale maps contained in a map folio which supplements the report. Geographical management units are delineated and classified on the maps also.

Estimates of regional deficiencies of trailer boat launching facilities and storage facilities for craft stored on or immediately adjacent to water bodies, were made by translating Statewide Comprehensive Outdoor Recreation Plan estimates of regional demand occasions into estimates of facility needs, and subtracting from the latter the existing supply of public and private facilities. Potential locations for public facility development were identified through analysis of accessibility, water body capacity, and environmental sensitivity factors.

Alternative management approaches to ameliorating boater and environmentally related problems, as well as Maryland's existing management mechanisms, were examined as to their implementation requirements and potential effectiveness. Five management options were identified and assessed: 1) reliance on existing and facility siting regulations, 2) development of an information/education program to improve self-regulation by boaters, 3) expansion of direct activity regulation, 4) expansion of facility siting regulations, and 5) an approach which would combine elements of each.

Relative to the needs and impact of recreational boating on the tidal waters of Maryland, this study has found the following:

- Localized overcrowding or congestion is a serious concern in a number of sub-bay units of the tidal waters of Maryland. Congestion appears to be primarily a function of accessibility to the water and the physical characteristics of tributary water bodies. Most instances of congestion occur in proximity to large concentrations of

boating facilities in narrow waterways or inlets, at tributary mouths, or in small embayments, where activity on the water surface is constricted by shoreline configuration and water depth.

- The rate of accident occurrence does not appear to have risen over the years, although the number of boats using the tidal waters has increased steadily from 77,368 registered boats in 1965 to 113,748 in 1974.
- The demand for boating facilities appears to be outstripping supply by a significant degree. Principal shortages, primarily of launching ramps, appear to exist in proximity to the major metropolitan regions, i.e., Baltimore and Washington. In order to satisfy unmet demand, increased facility programming will be needed in both the public and private sectors.
- Boating facilities often impinge on sensitive shoreline resources. Boating activity itself may in certain cases exacerbate shoreline erosion, increase turbidity levels in shallow areas with soft bottoms, and degrade water quality through the discharge of human wastes in poorly flushed water bodies where high levels of activity occur. Further field research appears needed to ascertain the existence and extent of these and other effects in Chesapeake and Chincoteague Bays.
- A strengthening of the Department of Natural Resources capabilities for dealing with boating activity and facility development will be essential if the growing demand for boating and its consequences for user satisfaction and environmental and social impact are to be adequately faced. Strengthening of capabilities would incorporate increasing staff and operational budget in the several divisions of the Department that deal with boating facilities and management, the augmentation of the present capital improvement program budget for launching ramps, and increased coordinative functions between the Energy and Coastal Zone Administration, other departmental divisions, and county and local construction programs.

In consideration of the study's findings it is recommended that:

- The siting of future boating facilities should be based on consideration of the capacity of sub-bay units of the bays to sustain new or expanded boating activities. The extent to which adjacent water bodies possess reserve or over utilized boating capacity, the sensitivity of environmental resources, the compatibility of existing shoreline uses, and land and water accessibility should be considered in the siting or expansion of boating facilities.
- County, local, and private interests should be encouraged, and state capital improvement funds should be directed to meeting existing and anticipated future demand for boating facilities on the bays. The construction of a number of large-capacity, multi-ramp launching facilities should be considered in locations adjacent to water bodies with reserve capacity.

- The management of boating activities and facilities should be based on existing legal frameworks. Expansion of the existing regulatory process should include voluntary cooperation based on the dissemination of public information, as well as mandatory measures in the form of increased activity and facility regulations.
- The capabilities of the Department of Natural Resources in planning for boating on Maryland's tidal waters should be reinforced. The adoption of a systematic boating capacity planning approach, geared to management units within the sub-area units (main tributaries) of the bays and to improved reporting and data analysis of congestion, accident, and environmental damage, will serve as a key to planning for both activity management and facility regulation.

Appendix C

Scope of Work of H.J. Res. 40: Boating Traffic

This paper presents a recommended scope of study in response to the Maryland Legislative House Joint Resolution No. 40 to determine whether continuous high-speed boat traffic is detrimental to small coves and creeks in Anne Arundel County. Estimates of expected duration and costs are included.

High boat speeds, i.e., in excess of six knots, may produce variations in boat wake and propeller turbulence which may significantly increase rates of shoreline erosion, and physically stress bottom dwelling plants and animals, or alter bottom habitats. Eroded shoreline sediment and bottom sediment re-suspended by propeller wash may result in biological impacts including lowered photosynthetic activity due to reduced light penetration, and the fouling of various feeding and respiratory mechanisms of fish and benthic organisms. The study problem, therefore, is to measure under controlled conditions, the amount of shoreline erosion and level of biological impact attributable to continuous high-speed boat traffic.

There are several inherent difficulties which complicate the solution of the study problem. For example, the amount of boat wake energy affecting the shoreline is dependent upon factors including size, hull design, and speed of the boats; frequency and duration of boating activities; and type of boating activity (e.g., cruising vs. water skiing). Also, the amount of shore erosion induced by a given level of wake energy is dependent upon factors including sediment type and soil structure of the shoreline, slope of the shoreline, presence of rooted vegetation which may stabilize the soil and dissipate wake energy, geometrical shape of the shoreline, the angle at which boat wakes strike the shoreline, water depth in the cove or creek, and tidal elevation of the water level. Measured shoreline erosion will be the result of natural (e.g., wind and storm induced waves, currents) and other man induced (e.g., land use practices) causes of erosion in addition to boat wakes. Solutions to the biological concerns of the study problem are compounded by natural changes in biological systems. Thus, due to the extreme complexity and variability of several factors involved in the study, it will be difficult to establish an acceptable experimental control and isolate boat speed as a single variable.

Because of the complexity of the problem and the varying degrees of intensity that can be applied to its resolution, three variations of the study are presented. Level I represents the minimal efforts recommended to ascertain whether or not significant environmental problems are associated with high speed boating. Level II expands this minimal effort so that an understanding of mechanisms of environmental deterioration, should there be any, may be determined. Finally, Level III is designed to generate information usable as a predictive model of boating impact on the environment. Level I is an integral part of the other two designs since it must first be determined if in fact a detrimental situation is created. If no detrimental effect were determined, a need to continue efforts would no longer exist.

Level I

Initial efforts should be directed toward an intensive literature investigation to determine the substrate (soil) composition and historically high erosion areas along the shoreline of Anne Arundel County. This information will then be used to select study areas which give the best available representation of soil composition and erosion rates for the county.

Along with the review of the county's soil composition, an intensive review of scientific literature and historical documents is to be undertaken. The scientific literature should be reviewed to determine the state-of-the-art and evaluate the applicability of other research to the study problem. General areas of concern include shoreline erosion processes; comparisons between boating induced, natural and other man related causes of erosion; and secondary biological effects of shore erosion such as increased suspended sediment in the water column and the destruction of bottom habitats.

Historical information that should be reviewed includes documents such as real estate surveys, navigational charts, survey and topographical maps and photographs. Interviews with community members and local governmental agents should be included with the historic review efforts. In those areas where extensive shoreline erosion can be historically documented, an evaluation of and correlation with water usage and boating frequency in those areas should be made to the extent possible. If not previously included, these materials, as applicable, should be used to compare selected study areas with the entire county shoreline to check the representativeness of selected study areas.

Meteorological data should be reviewed to determine rainfall, occurrence and severity of storms, wind strength and wind orientation to the shoreline. Tidal influences are to be analyzed also. Additionally, shoreline features or modifications that effect circulation patterns and shoreline stability -- e.g., piers, bulkheads and rooted vegetation -- need be assessed. Lastly, land use, land development and land run-off patterns also need to be evaluated.

Through review and analysis of the scientific literature and historical data, it may be possible to determine probable causes of erosion in areas where high erosion rates have been documented. Comparisons between areas with heavy boating traffic with comparable areas that do not experience heavy boating activity will indicate whether or not a positive correlation exists between extensive shore erosion and heavy boating traffic. Field investigations will be used to verify the conclusions reached from the review and analysis of the literature and historical data.

Field studies are to be designed incorporating at least two waterways within Anne Arundel County. The selection of these sites will be dependent upon findings of the substrate composition and historical investigations. With the assistance of the Maryland Marine Police, one waterway (the control) will have a rigidly enforced six knot maximum speed limit. The other waterway will have no speed limit imposed. Ideally, a third site would be chosen in which no boating activity occurs. It will be desirable to consider using additional sets of control and experimental sites if it is determined that one set does not adequately represent the variety of shoreline types which characterize Anne Arundel County.

Prior to implementation of study conditions, the areas selected will be surveyed to determine the average size, horsepower, speed and the number of motorboats at each site as well as frequency and type of boat usage, (e.g., water skiing, fishing, cruising and racing).

For the duration of one boating season, measurements will be made to demonstrate the effect of high-speed boating on the shoreline. Several series of markers will be positioned landward, down to some point below low-low water. The number of markers in each series, and the number of series, will be dependent upon area size and geometrical configuration. Measurements will be made of the height of the top of each marker above the substrate surface, and the distance of each marker from the shoreline (i.e., the water's edge at a selected tidal stage and under specified wind and rainfall conditions). At weekly intervals during the boating season and on a less frequent scheduled basis during other times, subsequent measurements will be made to determine if, or to what extent, the shoreline has eroded or accreted. Daily measurements of wave characteristics, wind speed and direction, tidal characteristics, and other meteorological events should also be taken using stationary in-situ devices which record these measurements on either a strip chart recorder or magnetic tape.

A separate but integral part of the study problem which also is to be investigated is whether prop wash degrades water quality to a level detrimental to local flora and fauna. Sufficient data may already exist in the literature or it may require a field or laboratory experiment designed to resolve the question. Potential impacts to be considered include resuspension of materials (e.g., sediment and toxins), increased turbidity, dissolved oxygen content, photosynthetic activity and disruption of aquatic spawning areas. Parameters to be measured include effective depth where the propeller no longer affects the substrate, speed or prop rotation, slope of shoreline and surface conditions.

Time and Cost:

It is anticipated that one to one and a half man years will be required for this investigation. Costs are expected to be in the range of \$40,000 to \$50,000, of which approximately \$10,000 is allocated for equipment.

Level II

Shoreline erosion is a result of the physical and abrasive force of water pounding against the substrate. To gain an understanding of the mechanisms involved in this process, simultaneous measurements of wave and substrate characteristics should be taken in both regulated and unregulated study areas. To achieve this, the scope of study presented in Level I should be modified to intensify field sampling.

In addition to the determination of wave characteristics as a function of boat size, speed, and hull configuration presented in Level I, wave pressure measurements close to the shoreline should be taken. Measurements of this kind provide data on the amount of force with which waves attack the shoreline. Comparison of this data from regulated and unregulated study areas would illustrate the difference between the forces with which each of the respective

shorelines are being attacked. Whenever possible, these measurements should be made on waves generated by wind only, and correlated with the prevailing average wind speed. Data on waves produced from the entire spectrum of average wind speeds that normally occur in the study area must be represented. This is necessary to accurately describe the effects of waves created by boating activity. In addition to the collection of wave pressure data, measurements should be taken of substrate porosity, cohesiveness and/or permeability. To the extent possible, these sets of measurements should be taken for the various types of substrate naturally occurring in the study areas. These parameters indicate the compactness of the substrate which determines how readily the substrate will dissociate. Measurements of these parameters can be made with either hand held devices or automatic in-situ instruments attached to recording machines. Time-lapse photography or some comparable recording method should also be used to document wave characteristics and the effects of the waves as the above measurements are taken.

Time and Cost:

It is recommended that this effort be conducted over two boating seasons, or one and one-half years, with an expected cost of \$70,000 to \$85,000. Of this expected cost up to \$35,000 would be allocated for instrumentation.

Level III

The third level of investigative intensity is designed to produce a quantitative predictive model of boating activity effects on the rate of shoreline erosion in Anne Arundel County. The model will use data inputs such as boat size, speed and hull configuration, frequency and type of boat usage, substrate composition, and shoreline configuration in order to predict the rate at which the shoreline would be eroded. Such a capability is invaluable as an aid to the management of recreational usage and environmental degradation in a given location. To produce such a model, the following additions to the previously described scope of study are recommended.

A detailed physical characterization of the shoreline substrate in Anne Arundel County should be the initial field effort. Grain size, water content, and percentages and ratios of various soil types are examples of the parameters to be measured. Knowledge of the types and distributions of the various substrates will serve as criteria for site selection for soil compactness measurements. All identified kinds of shoreline substrate should be analyzed to determine the relationship between cohesiveness (e.g., porosity and permeability) and wave force. This will provide a detailed understanding of erosion as a function of substrate characteristics, cohesiveness and wave force. Also, it should be determined whether or not a relationship exists between erosion and the angle at which a wave strikes the shoreline.

As field efforts are being pursued, a computer program should be written that would predict the rate of shoreline erosion. The program should be designed in a format to accept any combination of values for selected variables, i.e., boat size and speed, and soil characteristics, and generate from them an expected rate of shoreline erosion. This value, when compared to a normal value (which has to be determined) would indicate a potential acceptable or

nonacceptable induced rate of erosion. It would be desirable to have the format for data input developed early enough to be incorporated in field data collections.

Time and Costs:

This study design would last two and one half years at an anticipated cost of \$85,000 to \$100,000. Of this amount, \$15,000 to \$35,000 would be spent for instrumentation and \$1,500 for computer time.

Efforts to Date

In developing this scope of study, the Coastal Zone Unit has expended a considerable amount of effort in determining what usable information already exists. After a great deal of correspondence and extensive communications with experts on shore erosion and wave action and researchers familiar with the Chesapeake Bay, it was concluded that no direct information exists on the effects of highspeed boating on small creeks and coves.

Dr. Denzil Pauli of the Marine Board of the National Academy of Sciences, provided a list of individuals and institutions who are currently or have recently investigated waves and/or shore erosion. One of these individuals, Mr. William Baird of the Marine Resources Division, Department of Public Works, Ottawa, Canada, was investigating shore erosion caused by waves from boat traffic. It was learned that his efforts were, unfortunately, restricted to large commercial boat traffic in the St. Lawrence River. Another of Dr. Pauli's recommended information sources was the Water Wave Experiment Station, Vicksburg, Mississippi. Dr. Robert Whalin, Chief, Wave Dynamics Division at the Vicksburg Station informed us their research has been primarily concerned with waves caused by explosions, ocean waves, and general environmental engineering; and that none of their current or past efforts related directly to our study problem. Communicating with researchers at Texas A & M, University of Georgia, and North Carolina State University provided the same results. Everyone was extremely interested in the topic but not one was able to provide any technical information. Some of our communications were useful in learning about different kinds and costs of instrumentation applicable to our study problem. We were also able to secure several reports on shore erosion and waves. These reports concerned varied environmental habitats, e.g., cypress swamps, and the Gulf Intercoastal Waterway, thus, only the most broad generalized concepts could be used. Nevertheless, we were able to find some information related to erosion rates of different kinds of soils. This, along with personal communication with marine geologists, are very beneficial in developing soil parameters to investigate.

Dr. Charles D'Agostino at National Aeronautics and Space Administration's Bay Saint Louis facility, via Mr. Nick Montanarelli at the National Science Foundation, provided an extensive bibliography of wave effects and shore erosion. This, combined with our own survey efforts, yields an initial scientific literature bibliography consisting of over 225 entries. Additionally, the Coastal Zone Unit has available maps for Anne Arundel County depicting historic shoreline erosion, rates of shoreline erosion, and the location of various kinds of

erosion prevention devices. These materials which are already available from the Coastal Zone Unit constitute a significant portion of the required initial efforts of the study.

Procedure

- I. Development of Recommended Scope of Study
- II. Selection of Alternative by Legislative Advisory Committee
- III. Request for Supplemental Budget to Solicit Proposals - December 1, 1976
- IV. Soliciting Proposals - 1 month
- V. Proposal Selection - 1 month
- VI. Negotiation of Contract - $\frac{1}{2}$ month
- VII. Work Effort

Appendix D

Resource Management Studies

This appendix consists of three sections: 1) a preliminary inventory of proposed and existing major facility sites; 2) a summary of major work tasks for the Major Facilities Study; and 3) a summary of technical work accomplished regarding land and water areas in the Baltimore Metropolitan Coastal Area.

These inventories and technical studies will serve as a basis for conducting project evaluation concerning major facilities in the coastal zone and land and water use projects in metropolitan areas of the coastal zone. They will also define suitable areas for orderly growth and development.

Inventory of Sites

The Coastal Zone Unit is currently inventorying the coastal counties inhouse, to determine the locations of existing and proposed major facility sites. A partial list of these sites is contained in Table 1. This list will be expanded to include such items as fuel type used or processed, production capacities, number of ships calling, type of product delivered, size of site, surrounding land and water activities, and known conflicts surrounding the existing use of the site.

Major Facility Study

The Energy and Coastal Zone Administration (Coastal Zone Unit and Power Plant Siting Program) has contracted with the firms of Rogers and Golden, Inc. and Alan Mallach Associates to develop and apply technical methods to identify potential major facility areas in Maryland's coastal zone. The study is comprised of five tasks:

- Task I: Regional Screening. This is a process, whereby areas that contain likely sites will be determined for each of the major facilities listed in Table 2.
- Task II: Conflict Resolution. The objective is to better anticipate and address conflicts which may occur in determining suitable areas for major facilities. This task will provide several methods for identifying specific types of conflicts arising out of concern for location, policies, and competing uses.
- Task III: Power Plant Siting. The objective is to identify and assess three potential sites within the candidate areas on the Eastern Shore, as selected in regional screening, which are most suited to power plant placement. This task is to meet state law requiring Maryland to have alternative power plant sites.
- Task IV: Economic, Fiscal and Social Impact Assessment. The objective is to develop and test methods for assessing the economic, fiscal and social impacts resulting from locating, constructing and operating any major facility. Once a system is selected, state agencies and local jurisdictions may use it to conduct state

Table 1

Preliminary Inventory of Major Facility Sites

1. Energy Related Facilities

a. Petroleum Related Facilities

Crown Refinery	Baltimore City	(Proposed)
Stewart Oil Storage	St. Mary's County	(Operational)

b. Electric Generating Facilities

Elms	St. Mary's County	(PPSP owned)
Douglas Point	Charles County	(Proposed)
Bainbridge	Cecil County	(Proposed)
Perryman	Harford County	(Proposed)
Calvert Cliffs	Calvert County	(Operating)
Still Pond Neck	Kent County	(Proposed)
Morgantown	Charles County	(Operating)
Chalk Point	Prince George's County	(Operating)
Vienna Plant	Dorchester County	(Operating)
Crane Plant	Baltimore County	(Operating)
Riverside Plant	Baltimore County	(Operating)
Gould Plant	Baltimore City	(Operating)
Westport Plant	Baltimore City	(Operating)
Brandon Shores	Anne Arundel County	(Under Construction)
Wagner Plant	Anne Arundel County	(Operating)
Easton Plant	Talbot County	(Operating)
Chesapeake City	Cecil County	(Proposed)

c. LNG Facilities

Cove Point	Calvert County	(Operational)
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2. Commerce Related Facilities

a. Ports

1. Baltimore Harbor - Baltimore City	Anne Arundel County	(Operational)
2. Cambridge	Dorchester County	(Operational)
3. Salisbury	Wicomico County	(Operational)
4. Crisfield	Somerset County	(Operational)
5. Pocomoke City	Worcester County	(Operational proposed)
6. Town Point	St. Mary's County	(Proposed)

3. Mineral Extraction Facilities

a. Sand & Gravel

1. Whitemarsh	Baltimore County	(Operational)
2. Campbell Property (Gunpowder River)	Baltimore County	(Proposed)

4. Residential Facilities

a. Bodkin Point	Anne Arundel County	(Proposed)
b. Sue Creek Peninsula	Baltimore County	(Proposed)
c. Drum Point	Calvert County	(Existing)

5. Recreational Facilities

a. Annapolis Harbor	Anne Arundel County	(Existing)
b. Solomons Harbor	Calvert County	(Existing)
c. Drum Point	Calvert County	(Existing)

Table 2

Categories of Major Facilities

1. Energy Related Facilities

A. Outer continental shelf related facilities (oil and natural gas)

1. Pipelines
2. Intermediate production terminals (>10,000 BBL/day)
3. Refineries (> 10,000 BBL/day)
4. Storage Facilities (>100,000 BBL)
5. Operation Bases (>25 AC)

B. Electric generating facilities

1. Fossil-fuel (suitable for a least two 800 MWe coal burning units)
2. Nuclear-fuel (suitable for at least two 1200 MWe LWR units)
3. Transmission lines (from the facilities identified in 1a, 1b above to existing or currently planned transmission grid)

C. Liquid natural gas facilities

1. Pipelines
2. Processing plants
3. Storage facilities
4. Operating bases

2. Commerce Related Facilities

A. Ports

1. Navigation channels (>35 ft. depth)
2. Pier/Dock areas
3. Activities and Uses (Container/Bulk Cargo Products)
4. Spoil Disposal Areas

B. Industrial Parks

1. Primary Metal Production Industries
2. Chemical and Allied Product Industries
3. Food and Kindred Product Industries
4. Stone, Clay and Glass Product Industries

3. Sand and Gravel Extraction Facilities

4. Residential Facilities - Shoreline Residential Developments (>20 acres)

5. Recreational Facilities - Large Marinas (>100 boats)

- A. Berths
- B. Moorings
- C. Dry Storage
- D. Ancillary facilities (fueling, restaurants, etc.)

permit reviews and economic development programs in accordance with the approved county master plans. An economic impact handbook will be produced for state and local jurisdiction use.

Task V: Environmental Assessment. This task provides methods for assessing the environmental impacts of a major facility on a site specific basis. The task includes the production of an Assessment Handbook so that state and local jurisdictions may conduct environmental assessments in a more consistent and coherent manner.

Tasks IV and V provide state and local decision makers with the opportunity to test alternative development strategies when conducting comprehensive planning exercises. Use of these analysis methods will allow better, more informed decisions on the impacts of major facilities on natural, economic, social and fiscal environments.

The Coastal Zone Unit will publish two handbooks for conducting these analyses. Each handbook will be used by state and local agencies for any phase (planning, siting, constructing or operating) of major facility development. One handbook will cover social, economic, and fiscal impacts; the other will cover natural environment impacts.

The Social, Economic and Fiscal Impact Assessment Handbook will contain, generally, the following types of information given any type of major facility being considered under Task I: 1) a description of the data base file and how to access it; 2) a description of local data necessary for impact assessment and methods for collecting the data (dependent on the degree of specificity desired); 3) a description of how to use the data in terms of conducting the assessment; and 4) selected descriptions of how to interpret the results (dependent on the degree of specificity desired). The assessment procedure is designed to be cost-effective; it does not rely on sophisticated computer programs and can be used by any person possessing basic economic and fiscal skills.

Six types of outputs will be retrievable from the assessment, given that the assessor knows certain basic economic facts concerning the proposed facility and the existing economic and fiscal conditions of the local jurisdiction (most of this information will be a part of the Handbook). These outputs include 1) generation of population increment by household characteristics, 2) generation of housing demand by type and cost, 3) generation of revenue and service facility deficiencies, 4) generation of service facility costs, 5) cost/revenue relationships of service facilities, and 6) an illustrative social impact assessment.

The Natural Environment Assessment Handbook will contain information on the types of major facilities being considered under Task I: 1) a listing of activities expected to occur during the life of the project and a listing of the natural characteristics expected to be affected by those activities, 2) information and techniques for measuring and assessing impacts, and 3) project assessment worksheets to provide decision makers with the capability to evaluate significant impacts of a project and alternative sites.

Baltimore Metropolitan Coastal Area Study

An integral element of the Baltimore Metropolitan Coastal Area Study, being funded by demonstration funds from the Federal Office of Coastal Zone Management and the Department of Housing and Urban Development, involves development of methods to identify management units and define their suitability for utilization. The assumption behind the Study's land resource analysis is that adequate management of land activities will reduce adverse impacts on coastal waters. The procedure for analyzing landward resource management units consists of three distinct elements; analysis of land capability, landscape, and facilities.

Land Capability Analysis

The land capability analysis procedure indicates the degree of limitation placed on development by natural factors. This analysis facilitates both policy considerations for management of resource types, and indicates areas of environmental sensitivity as they relate to identified development pressures.

Criteria used in determining land capability include: slope, vegetation coverage, septic suitability of soils, foundation and physical stability properties, water table factors, susceptibility to flooding, unique or irreplaceable coastal resource values, and erosion potential.

From these criteria 10 categories are proposed to display the degree of natural constraints a land area exhibits from a development standpoint for both sewer and non-sewer areas (See Table 3). This analysis represents an alternative procedure for formulating recommendations for Geographic Areas of Particular Concern, and serves as a guide for recommending growth standards for environmentally sensitive areas.

Landscape Analysis (Aesthetic Resources of the Coastal Zone)

This analysis provides a procedure for determining vista points and other unique shoreline edge areas. In order to address sensitive near-shore areas, an inventory of shoreline conditions is being compiled including analysis of development character, open areas (i.e., grass areas, beaches, meadows), steep slopes, tree coverage areas, visual horizons, special vistas, unique landmarks and natural coastal features. This documentation provides an alternative framework for determining future priorities for public access, scenic roadways, and bike trails. This procedure also will aid local and state units to establish development guidelines to ensure adequate protection and enhancement of shoreline areas.

Facilities Capability Analysis

Public facilities and transportation networks are primary factors in determining the timing, extent, and size of urban related growth. An inventory of existing and planned sewer service areas, sewage treatment plants, and plant capacities has been compiled. Finally, the major transportation network has been compiled and analyzed. The inventory for the facilities capability analysis will be used in formulating public facilities policies for the coastal zone.

Table 3

Development Type System

<u>Unsewered Areas</u>	<u>Sewered Areas</u>
<u>Extreme</u>	<u>Unit One (S-1)</u>
No Septic Suitability	Periodic Flooding Hazard
Periodic Flooding	Extreme Erosion Hazard
High Water Table Hazard	Extreme Foundation and Structural
No Foundation or structural suitability	Unsuitability
	High Water Table Hazard
	Unique Coastal Resources
<u>High</u>	<u>Unit Two (S-2)</u>
High Erosion Hazard	Steeply Sloped
High Water Table Hazard	Potential High Erosion Hazard
No Septic Suitability	Potential Foundation Problems
Variance Topography	Variables: Tree Covered, Degree
	of Slope aggravated erosion
<u>Moderate</u>	<u>Unit Three (S-3)</u>
No Septic Suitability	Significant Tree Cover
Moderate Erosion Hazard	Flat to Rolling Topography
Foundation & Structural Suitability	High Erosion Hazard
	High Water Table Hazard
	Structural Problems
<u>Low</u>	<u>Unit Four (S-4)</u>
Septic Suitability	Flat to Rolling Topography
Slight Erosion Hazard	High Erosion Hazard
Foundation & Structural Suitability	High Water Table Hazard
	Structural Problems
	<u>Unit Five (S-5)</u>
	Significant Tree Cover
	Slight to Moderate Erosion
	Foundation Stability
	Variables: Erodibility
	<u>Unit Six (S-6)</u>
	Moderate Topography
	Slight to Moderate Erosion
	Foundation Stability
	Variables: Erodibility

As an outgrowth of the analysis techniques, the socio-economic projections of land needs by use, and the compilation of issues, there developed a method to allocate uses to land and waters in an orderly manner. This development type system allows for a mixture of uses in an area, and includes a series of development (performance) standards which define the character and environmental quality of an area, and suggests that developments capable of meeting those standards are suitable for placement.

The development type system differs from present zoning systems. Current zoning designates each parcel of land by use, with associated standards for that use only. Zoning standards in many instances neither directly protect environmental quality nor relate the character of development to that of the land. This proposed classification system builds upon the present system by adding an environmental component.

Four broad categories are proposed for the development type system. Within each category there is a range of types. For each development type there is a mixture of uses and a series of development (performance) standards associated with each major use. Table 4 details the categories of the proposed development type system.

Table 4

Development Type System

Economic Development Types

ER-1: Channel-Dependent Activities
ER-2: Water-Dependent Activities
ER-3: Back-Up Areas for ER-1 and ER-2
ER-4: Non Water-Dependent Activities
ER-5: Extractive Industrial

Rural Development Types

RR-1: Rural Community
RR-2: Rural Residential/Agricultural
RR-3: Conservation/Preservation
RR-4: Open Space/Natural Protection

Community Development Types

CR-1: High Intensity Development
CR-2: Moderately High Intensity
CR-3: Moderate Intensity
CR-4: Moderately Low Intensity
CR-5: Low Intensity Development

Open Space

OS-1: Recreation/Open Space

Appendix E

Aquatic Sensitive Areas

Maryland has within its coastal zone a wide variety of aquatic environments. From the saline waters of the Atlantic Ocean, up the Chesapeake Bay estuary to the fresh headwaters of the Bay's river tributaries, many aquatic habitats are encountered.

Inspired by the variety and the curiosity each area generates, the many academic, private, state and federal institutions have provided generous quantities of material giving details of aquatic resources. Hildebrand and Schroeder's "Fishes of the Chesapeake Bay", Alice Lippson's "Development of Fishes of the Chesapeake Bay Region", and her "Manual for Identification of Early Developmental Stages of Fishes of the Potomac River Estuary," are just a few examples of the documents which describe the ecology and overall assessment of Maryland's aquatic resource. Because of the existence of these and related documents there is no need for duplicating their contents in this appendix. Therefore, this discussion is confined to the philosophy and methodology the Coastal Zone Unit has adopted for the management of the aquatic resources.

Within the boundary defined as Maryland's coastal zone, the aquatic resources occur in three rather discontinuous, discreet areas. The first of these areas occurs in the territorial waters of the 31-mile Atlantic coastline. The fisheries resource in this area is derived from mid-Atlantic populations subjected to national and international activities as well as varying water use practices of nearby states. An extensive charterboat industry makes up the majority of the recreational fishing along the ocean front. Commercially, such desired seafoods as lobster, surf clams, cod and mackerel come only from this area. The overall commercial effort, however, contributes only slightly to the State's commercial harvest.

Sinepuxent, Assawoman and Chincoteague are the seaside embayments that constitute the second area. These bays are producers of hardshell clams, oysters and crabs. These bays, though favorable for oyster growth, are frequently infested with the oyster disease MSX which reduces their contribution to commercial harvest. Spawning and development of some ocean fish occurs in these bays, supporting a small commercial effort. The seaside bays are predominantly recreational fishing areas, being heavily fished during the warm summer season.

The third and most extensive area in terms of the aquatic resources is the upper portion of the Chesapeake Bay. Fed by two major interstate rivers, the Susquehanna and the Potomac, and numerous other smaller rivers, the Bay is an important habitat for large populations of resident and migratory fish and shellfish. The species that make up these resident and migratory populations utilize the various components of the Bay's ecosystem in a variety of ways. The resident species, composed of freshwater and

estuarine species (Table 1), rely on the Bay to provide food and shelter for larvae, juvenile, and adult members year round. The Bay being an estuarine ecosystem, provides free access to and from both marine and freshwater environments. This allows for more specific use of the Bay by migratory species.

A significant part of these migratory populations is composed of anadromous fish (Table 2). These fish enter the Bay from the Atlantic Ocean as sexually mature adults in the early spring and migrate to the freshwater stream of their own birth to spawn. When the spawning cycle is completed the adults begin their egress back to the marine environment. In addition to using the Bay as a desired place to spawn, many of these adults forage the food during their migration to or from spawning grounds. As the larvae develop they consume the food supplied by their yolk sac. As they begin their journey towards the Atlantic, the brackish and estuarine waters assume the role of a nursery. These migrants to the Atlantic may continue developing within the estuary for a year or more, gradually moving down the salinity gradients to the ocean.

Another more specific function the Bay is providing for migratory marine fish is as a feeding ground for juveniles and adults. At varying times during the warmer months, large schools of Atlantic spawned juveniles and young of the year ascend into the Chesapeake Bay feeding on the bountiful productivity of the estuary. These young feeders are totally dependent on the Bay during this stage of their development. As these schools of hungry juveniles leave the marine environment, they are followed by many adult predator fish. Within the Bay these foraging fish chase after and attack not only these nursing schools but many of the other fishes that are occupying the Bay at that time. A generalized summary of these various groups of species is given in Table 3.

Aquatic resources are extremely varied and provide a significant input into Maryland's economy. In recent years, annual commercial catches have exceeded 79 million pounds, and have been valued over 21 million dollars. The purchase and rental of equipment and accessories for sport-fishing adds considerably to this total. Because of the significant contribution the aquatic resource makes to Maryland's economy and recreational endeavors, the primary emphasis of the aquatic resource portion of the Coastal Zone Management Program is on maintenance and management of desired commercial and sport species. This will be achieved by assuring that those areas that support the commercial and recreational fisheries are protected; and that sufficient access for harvesting the biota produced by these areas is provided. To do this, sensitive areas are being defined and identified by the Coastal Zone Unit.

From an ecological purview this is an easy task. Because of the interdependence of all the species, the multidirectional flow of energy and the utilization of every available niche, the entire coastal zone is a sensitive area. The reaction of the entire system to an act perpetrated in one part of that system cannot be ignored. However, from a management viewpoint, it is realized that some areas provide greater contributions to the existence of desired commercial and sport fishes than others. It is these areas that we are identifying and intend to give greater emphasis. If these areas, referred to as aquatic sensitive areas, are

properly maintained, then there is a greater assurance of the availability of the populations they support. There are five kinds of areas the Coastal Zone Unit has defined exemplifying this greater contribution.

Spawning and nursery areas constitute the first of these kinds of sensitive areas. The dependency of sport and commercial fishing on these areas is unequaled. As described earlier, not only resident communities but large migratory populations depend upon the coastal zone for spawning, nursing and feeding.

The second kind of sensitive area we are considering is the pathway taken by migratory fish to and from spawning, nursing and feeding areas, and by resident fish during the seasonal movements.

Areas where fish and shellfish have historically been known to aggregate and areas suitable for the propagation of shellfish are the third and fourth kind of sensitive areas. These areas for shellfish propagation will consider natural and artificial means of propagation in both existing and potential areas suitable for such an endeavor.

Lastly, the range of rare, relict and endangered species is considered. These species will be consistent with state and federal designation as well as those indicated by other programs.

Many years of dedication, perseverance and continued unanswered questions supported by vast amounts of money have produced numerous volumes of data pertaining to the aquatic resources within the coastal zone. Realizing that neither time nor funds were available to adequately undertake a field survey, the Coastal Zone Unit began pursuing an extensive review of the existing data to identify those areas upon which the aquatic resources are dependent. Although some areas have had less investigation than others, there is enough existing information to identify most aquatic sensitive areas. This review will provide an awareness of these areas, enabling the Coastal Zone Unit to coordinate future research efforts to produce a better understanding of Maryland's aquatic resources.

The Coastal Zone Unit is examining not only the historic works, but actively following current and ongoing endeavors. By combining these two, an understanding of trends and changes can be obtained. This is essential to realistically assessing the contribution a given area has or should have to the overall resource. From this, better managerial decisions can be made.

After ascertaining the extent of the aquatic resources and selection of target species (Chapter V, Table V-1), efforts were directed to individual river systems. As the material pertaining to a given river was evaluated, any area matching any of the defined kinds of areas was identified as an aquatic sensitive area. This information is being used in a two phased endeavor.

As sensitive areas are identified for each river, a map of that river is drawn. The map delineates where the various kinds of sensitive areas are located. Maps for all of the rivers and seaside bays will be combined

into a reference handbook currently being developed. This handbook, incorporating coded maps, will have an accompanying written discussion about each river. In the discussion will be information on which target species occurs in that river, and how these species utilize the areas. Also, included in the text will be information on the current status of the aquatic biota in that river and a general overview of the surrounding environmental factors affecting the river.

Our intention in producing the handbook is to provide those individuals involved with making decisions, which in any way affect the aquatic resources, with a reference book in which they will be able to determine whether or not a proposed activity may conflict with the use of the area by its aquatic biota. By providing those individuals who are responsible for the day-to-day management of local areas with an awareness of the interdependence and overall sensitivity of a river ecosystem, more consideration will inevitably be given to how activities and other uses affect the aquatic environment. This is not to imply that the handbook is a text that will produce instant ecologists. It is only intended to provide the non-technical decision maker with a general awareness of the delicate balance so he or she will be able to recognize situations which warrant a more detailed evaluation.

The other phase of this effort is to review the identified sensitive areas to determine which areas are of greatest sensitivity. This is being done with the cooperation of scientists, researchers, citizens, watermen, state and federal agency representatives, and others who have a current awareness of the aquatic biota in the individual rivers and bays. As these areas are identified they will be suggested to the county in which they occur for recommendation to the Department of State Planning (DSP) as a State Critical Area. Accompanying each nomination to DSP is a management program which we will assist the counties to develop. Assisting all the counties in developing management programs will place the Coastal Zone Management Program in the unique position of coordinating boundary-wide management objectives. The Coastal Zone Unit is therefore providing and coordinating management objectives and programs by which the most beneficial and wisest use of the aquatic resources in Maryland's coastal zone can be achieved.

TABLE 1

Common Freshwater and Estuarine Species
of Maryland's Coastal Zone

Largemouth bass
Smallmouth bass
Pumpkinseed sunfish
Bluegill
Chain pickerel
Carp
White Crappie
Black Crappie
White catfish
Channel catfish
Brown bullhead
White perch
Yellow perch
Mummichog
Bay Anchovy
Siverside
Gizzard shad
Hogchoker
Blue Crab
American oyster
Soft-shell clam
Brackish-water clam

TABLE 2

Common Anadromous Fish Occurring in Maryland

Striped bass

Alewife

Blueback herring

American shad

Hickory shad

Winter flounder

TABLE 3

Summary of Use Categories of Migratory Fish

spring - summer - fall anadromous spawners	{ Striped bass Alewife Blueback herring Shad Hickory shad
catadromous spawner	Eel
winter spawner	Winter flounder
spring - summer feeders	{ Bluefish Spot Croaker Weakfish Menhaden

Appendix F

Maryland Tidal Wetlands Study

General

The tidal wetlands study undertaken by the Coastal Zone Unit refines and expands existing information on Maryland's tidal wetland areas. The study provides valuable information for use in the Department of Natural Resources' day-to-day permitting work. It will also aid the Coastal Zone Unit in identifying wetland areas that warrant special attention as part of the Geographic Areas of Particular Concern program element.

The major effort in this study is the mapping of vegetation in Maryland's tidal wetlands. This has been accomplished through interpretation of existing aerial photography. The mapping is done on mylar photomaps housed in the Wetlands Permit Section of the Department of Natural Resources. A second important task is a literature review of the ecological and environmental values of the delineated vegetation types. Additional tasks include a productivity - diversity study on Maryland's wetland vegetation, a wetland information summary, and acquisition of aerial photography to cover Maryland coastal areas that were not imaged on existing photography. This appendix provides a description of each task. The study is scheduled for completion in March, 1977.

Vegetation Mapping

Through interpretation of existing aerial photography of Maryland's tidal wetlands, 31 vegetation types are being mapped down to $\frac{1}{4}$ acre in size. The vegetation types are listed in Table I. The mapping is being done on approximately 2,000 mylar photomaps at a scale of 1:2400 (1" = 200'). Since the aerial photography was flown in 1971, a minimum of 40 percent of the maps are being field checked.

Value Assessment

The objective of this task is to assemble data on the ecological and environmental values of vegetation types common to Maryland's tidal wetlands. The approach to this task is to conduct an extensive literature search of the values associated with the vegetation types.

The values assessed in this task include such factors as primary productivity, nutrient content of predominant plants, frequency of flooding, plant species diversity, rare and endangered species habitats, water pollution abatement capacity, flood buffer capacity, erosion control capacity, fish habitat values, wildlife habitat and food values, and sediment entrapment capacity.

Productivity - Diversity

To provide more substantial data on which to base management and regulatory decisions, estimates of primary productivity and plant species diversity have been obtained for the vegetation types. Through the literature search conducted in the Value Assessment task, adequate productivity estimates were found to exist on seven of the vegetation types. As part of this task, productivity estimates were obtained on an additional 17 types through standing crop sampling.

The productivity information obtained in this task, including a list of sites from which samples have been collected during the study and at least one photograph of each vegetation type, will be compiled into a handbook on Maryland's tidal wetlands.

Wetlands Information Summary

This task consists of a summary in tabular and text form describing

- (1) the acreage and specific location of each wetland vegetation type; and
- (2) the percent of occurrence of each vegetation type for each major watershed, each county and the State. The information is being compiled by dot gridding the delineated vegetation types on the mylar photomaps.

Photography Acquisition

This task consisted of acquiring approximately 140 frames of 1:12,000 scale aerial photography to cover coastal wetland areas that were not imaged on existing photography. The photographs are true color and were taken during the fall growing season of the vegetation.

Table 1

VEGETATION TYPING SCHEME

SHRUB SWAMP CATEGORY

- 11 *Rosa palustris*
- 12 *Alnus serrulata*/*Salix nigra* (Alder/Willow)
- 13 *Acer rubrum*/*Fraxinus* spp. (Maple/Ash)

WOODED SWAMP CATEGORY

- 21 *Taxodium distichum* (Cypress)
- 22 *Acer rubrum*/*Fraxinus* spp. (Maple/Ash)
- 23 *Pinus* spp (Pine)

FRESH MARSH CATEGORY

- 30 *Polygonum* spp./*Leersia oryzoides*
- 31 *Nuphar advena*
- 32 *Pontederia cordata*/*Peltandra virginica*
- 33 *Acorus calamus*
- 34 *Typha* spp.
- 35 *Hibiscus* spp.
- 36 *Zizania aquatica*
- 37 *Scirpus* spp.
- 38 *Spartina cynosuroides*
- 39 *Phragmites australis*

BRACKISH HIGH MARSH CATEGORY

- 41 *Spartina patens*/*Distichlis spicata*
- 42 *Iva frutescens*/*Baccharis halimifolia*/*Spartina patens* (*S. patens* only as an understory with the shrubs being dominant. This type is in recognition of a common, or frequent, association recognized herein as a type,)
- 43 *Juncus roemerianus*
- 44 *Typha* spp.
- 45 *Hibiscus* spp.
- 46 *Panicum virgatum*
- 47 *Scripus* spp.
- 48 *Spartina cynosuroides*
- 49 *Phragmites australis*

BRACKISH LOW MARSH CATEGORY

- 51 *Spartina alterniflora* (No growth forms differentiated)

SALINE HIGH MARSH CATEGORY

- 61 *Spartina patens*/*Distichlis spicata*
- 62 *Iva frutescens*/*Baccharis halimifolia*/*Spartina patens*
- 63 *Juncus roemerianus*

Table 1 Cont'd.

SALINE LOW MARSH CATEGORY

- 71 *Spartina alterniflora*
- 72 *Spartina alterniflora* (low growth form)/*Salicornia*/*Limonium*

MUD FLATS CATEGORY

- 80 Open water natural bids
- 81 Mud flats (may be seasonally vegetated by emergent broadleaves and/or submerged vegetation)

BEACHES - SAND BARS CATEGORY

- 91 Beaches/Sand bars

SUBMERGED AQUATIC VEGETATION CATEGORY

- 101 Submerged aquatic vegetation

Appendix G

Upland Natural Areas Study

As part of an ongoing effort by the Maryland Coastal Zone Management Program to describe and assess the resources of Maryland's coastal areas, the Maryland Upland Natural Areas Study was begun in 1975 with the goal of surveying all areas within the Coastal Plain that had at one time or another been recommended as potential areas of critical state concern because of their floral or faunal characteristics. For the purposes of this study, upland natural areas are defined as areas where, at present, natural processes predominate and are not significantly influenced by either deliberate manipulation or accidental interference by man. The majority of sites sampled include mature forests, wooded swamps, non-tidal wetlands, and stream corridors. Tidal areas were excluded from this study and will be subjected to a separate inventory and assessment.

The purpose of the Upland Natural Areas Study is to provide both objective and descriptive data on identified natural areas. The sampling methodology was developed with two basic goals: (1) to provide a consistent data base so that one area could be compared to another, and (2) to enable the characterization of many sites quickly and accurately. This information will be used to describe and evaluate the inherent value of an area as a natural ecological unit and to ascertain the value of specific areas for certain compatible uses. The parameters included in the sampling procedure were determined from interviews with people representing the various disciplines who would be using the study results. These parameters as listed in the tables that follow.

The Study was organized in the following manner to carry out the sampling. Summer students were hired who had demonstrated experience in some type of vegetation analysis. These field crew members then participated in a one week training session to familiarize them with the sampling procedure and to achieve consistency between individuals. The crew was then divided into teams of two and each team was given the responsibility for sampling all the sites in a county. A field manager visited each team at regular intervals to help maintain the consistency of sampling techniques between teams, solve problems relating to the sampling procedure, and to distribute supplies.

To date approximately 700 sites in Maryland's Coastal Plain have been sampled using these techniques. A list of these sites by name and county is attached.

The major product of the Upland Natural Areas Study is a computer storage file from which specific natural area data can be quickly retrieved. This file system makes the data more useful by increasing its accessibility to the users such as county planners, state agencies, and private citizens. A computer printout of natural areas information for each county and a county map with the areas delineated on it can be made available to potential users.

The important features of the study which should be emphasized are:

(1) The sampling methodology is set before field work begins. This is important for consistency and uniformity of the data collected.

(2) The methodology is designed to fulfill the information needs of potential users. Since the users were included in the development of the methodology, they are more likely to use the data collected by this methodology.

(3) The sampling techniques are easily replicated so that new sites can be added and the study can be continuously updated.

(4) The data is easily compared between sites, and

(5) The natural areas information is readily accessible to potential users.

The following Tables were taken from Pitt, D.G. et al., 1976, A Summary of Maryland Uplands Natural Areas Study (Md. Coop. Extension Service, Univ. of Md. College Park).

CATEGORY	PARAMETER	MEASUREMENT TECHNIQUE/DESCRIPTION	IMPORTANCE
Size	Size of Area	Dot grid overlayed on aerial photograph of area. Number of dots in area multiplied by photo scale to determine acreage.	Determines suitability of area for various uses (e.g. recreation, wildlife.) WA, FS, SP, CP, ES, CZ, SC
	Minimum Dimension	Measured width of narrowest portion of area on map.	Determines suitability of area for various uses (e.g. recreation, wildlife.) CP
Location	County name	County identified from map.	Finds general location of areas.
	Election District	Identified from county topographic maps.	Finds general location of area.
	Nearest Town	Identified from county topographic map.	Finds general location of area.
	Geographic Location	Upland site (interior), island, natural pond shore, water impoundment shore, tidal stream shore, non-tidal stream shore, bay shore, river shore, ocean shore, waterbody.	Classifies each natural area by giving general descriptive information.
	Site Type	Upland areas classified into following topographic categories: ridge, upper slope, midslope, lower slope, flood plain. Wetlands classified into following topographic categories: upland-isolated, upland-pondside, bottomland-isolated, bottomland-streamside, bottomland-deltaic.	Indicates vegetation likely to be found in the area.
	Ecological Unit	Ecological system that predominates in the area identified from the following: pond, river, tidal stream, non-tidal stream, marsh, bog, wooded swamp, shrub swamp, forest, early (or young) forest, thicket, old field.	Gives general descriptive information about the area.
	Watershed	Drainage basin in which the area is located, identified on topographic map.	Finds general location of area.

CATEGORY	PARAMETER	MEASUREMENT TECHNIQUE/DESCRIPTION	IMPORTANCE
Geology	Geologic Formation	Geologic formation underlying the area identified from Maryland Geologic Map of 1968.	Determines stream character and location, soil characteristics, vegetation and wildlife characteristics, quality and quantity of groundwater and valuable minerals and/or fossils. GS
	Unique Geological Formations	Any unique geological formations discovered in field study were noted.	Unique features require consideration for possible preservation for scientific and/or educational value. GS, SP, CP
Soils	Soil Type	Dominant Soil Type occurring in area was identified from the County Soil Survey Manual. Soil type is an indicator of surface texture, overall soil texture, structure, pH, base saturation, organic matter content, topographic position, drainage, depth, color, parent material, and horizon thickness.	Determines suitability of area for various uses. FS, CZ, SC
	Natural Soils	The Dept. of State Planning has classified Md. soil types into soils groups based upon their major properties and features. The soils group occurring in the area was identified from this classification.	Determines suitability of area for various uses. SP, CZ, SC
	Soil Drainage	Soils underlying an area were classified as either well drained (free from mottling, an indicator of seasonally high water table, to a depth of 36 inches) or not well drained. Classification based on County Soil Survey Manual data.	Determines suitability of area for various uses. CP, SC
	Soil Erodability	The dominant Soil Erodability Coefficient for the soils underlying the area was identified from the County Soil Survey Manual.	Determines suitability of area for various uses and the type of management practices that must be exercised to prevent soil erosion. CP CZ, SC

	Runoff Potential	The potential of soils underlying an area to shed rainfall was classified into one of seven categories ranging from high to low. Runoff potential is based upon internal soil drainage, depth, texture and subsurface conditions.	Determines potential surface water runoff that may occur in an area and consequent soil erosion that may take place. CP, CZ, SC
Vegetation	Vegetation Type	The dominant or codominant vegetative species of an area were recorded and grouped into a classification system developed by the Society of American Foresters.	General descriptive information about the area and determining suitability of area for various uses. FA, WA, FS, CP, ES, CZ, SC
	Number of Veg. Types Present	The total number of vegetation types found in an area was recorded.	Indicates the diversity of vegetation and consequently the diversity of wildlife likely to be found in the area. WA, CP
	Total Vegetation cover	The percentages of a natural area covered by canopy (large trees), understory (small trees), shrub and herbaceous (ground cover and vines) vegetation was recorded.	Provides understanding of natural functions of the area and determines suitability of area wildlife. FA, WA, FS, CP
	Total Cover by Species	Average percentages of total vegetation cover accounted for by each species in a natural area were estimated.	Determines dominant plant species. WA, CP
	Average DBH of trees	The diameter at breast height of all canopy trees found in a natural area was estimated and average DBH for each species present was recorded.	Natural areas with average DBH less than 6 inches are unsuitable for recreation, while a DBH greater than 24 inches provides potential for wildlife dens and nests, and may be candidate for designation as Champion Tree (greater than 200 years old). WA, FS, CP
	Percentage of 5-10 acre openings in forest	The percentage of the natural area consisting of 5-10 acre openings was measured on an aerial photograph.	Woodland wildlife prefer landscapes that have 3 to 5 percent of their areas characterized by openings 5-10 acres in size. WA

CATEGORY	PARAMETER	MEASUREMENT TECHNIQUE/DESCRIPTION	IMPORTANCE
Water	Type of Water Body	Water bodies occurring in a natural area were classified into one of the following categories: dace trickle stream, trout feeder, trout stream, sucker stream, bass feeder, bass stream, pickerel stream, bullhead stream, catfish stream, carp stream, tidal stream, ocean, bay, pond, bog, shallow freshwater marsh, deep freshwater marsh, shrub swamp, wooded swamp, tidal wetlands.	Determines suitability for various kinds of uses. FA, WA, CP, CZ, SC
	Size of Water Body	Size of water bodies occurring in a natural area was recorded.	Determines suitability for various kinds of uses. FA, WA, CP, CZ, SC
	Depth of Water Body	The depth of water bodies was recorded as either less than or greater than 1 foot.	A depth of one foot is considered a minimum depth for water-based recreational activities. FA, WA, SC
	Bottom Material	Bottom material was classified into one of the following categories: peat, muck, silt, sand, gravel, cobble, rock.	Determines capacity of water body to support various aquatic organisms. FA, WA, CZ, SC
	Distance to Water Body	Distance of a natural area to the nearest water body was recorded.	Indicates potential value for recreation and wildlife habitat. WA, CP, CZ, SC
	Percentage of Stream Shaded by Trees	The percentage of area in streams bisecting a natural area that was shaded by trees was measured.	Streamside shade trees help stabilize water temperatures and provide food and nutrients for aquatic organisms. FA
	Aquatic Buffer Zone	The width of vegetation adjacent to soils having a high runoff potential, water bodies or watercourses was measured. This distance was classified into three categories: Adequate (greater than 300 feet width); Questionable (50-300 feet); and inadequate (less than 50 feet).	Aquatic buffer zones help prevent the movement of pollution originating on land (e.g. sediment, biological contamination) into water bodies. FA, WA, ES, CZ, SC

CATEGORY	PARAMETER	MEASUREMENT TECHNIQUE/DESCRIPTION	IMPORTANCE
Wildlife (cont.)	Wetland Class	Wetlands occurring in natural areas were classified into 8 categories; open water, deep marsh, shallow marsh, seasonally flooded flats, meadow, shrub swamp, wooded swamp, bog.	Indicates wildlife value of natural areas. WA
	Wetland Wildlife Rating	The overall value of a wetland found in a natural area was determined relative to other wetlands through composite analysis of wetland class, wetland size, site type, surrounding conditions, wetland cover type, wetland vegetation interspersion and juxtaposition to other wetlands.	Indicates wildlife value of natural areas. WA
Other Physi- cal Charact- eristics	Elevation	The elevation of the natural area was determined from the county topographic map.	Gives general descriptive information about the area.
	Contiguous Land Use	The use of adjacent land areas in all four Compass directions was recorded.	Affects natural integrity and wildlife value of natural areas. FA, CP, CZ, SC
	Slope	The dominant topographic slope was recorded as being either above or below 15%.	Slopes greater than 15% are difficult to use for intensive recreational purposes. CP
	Access to Area	Ease of approach to a natural area was evaluated based on a natural area's location with respect to highways, roads, trails, and its soil drainage characteristics.	Determines suitability for various kinds of uses. CP
	Ease of Passage Through Area	Ease of walking through a natural area was evaluated based on a natural area's vegetation understory and soil drainage characteristics.	Determines suitability of natural area for such uses as hiking, bird watching, or nature study. CP
	Visual Experience	Visual experience on the site was evaluated on the basis of the size of the area, variety of visual elements, number of water views, rate of landscape change over distance, complexity of topography, and the field evaluator's personal impressions.	Determines suitability of natural area for various uses. WA, CP, CZ

	Depth to Water Table	The depth from the soil surface in a natural area to the seasonally high water table (highest elevation of the sub-surface water table) was determined from the County Soil Survey Manual.	Indicates probable vegetation types to be found and helps determine suitability of area for various kinds of use. FA, CZ, SC
	Beach Type	Types of beaches occurring in natural areas were classified into three categories: banks or bluffs; sloping sandy beaches with dunes; sloping sandy beaches without dunes.	Determines suitability for various kinds of uses. CP, CZ
	Beach Frontage	The shoreline length of beaches was measured.	Beach frontages greater than 1500 feet are desirable for public recreation. CP, CZ
	Beach Width	The width of beaches was measured.	Beach widths greater than 20 feet are desirable for public recreation. CP, CZ
Wildlife	Species	Mammals, birds, reptiles or amphibians whose existence in a natural area was observed directly during field study, deduced by presence of a den or nest, or reported by local residents, were recorded along with the source of the data.	Indicates wildlife value of natural area. WA, CP, ES
	Frequency	The frequency of each specie recorded was classified as abundant, common or rare.	Indicates wildlife value of natural area. WA, CP, ES
	Residency	The time of year during which recorded species inhabit a natural area was identified.	Indicates wildlife value of natural area. WA
	Wetland Cover Type	The relative proportion of vegetation cover and open water and their interspersions in a wetland within a natural area was measured.	Indicates wildlife value of natural area. WA
	Wetland Vegetation Interspersion	The interspersions of different types of wetland vegetation (e.g. trees, shrubs, emergent plants, submerged plants) was classified into three categories: high, medium and low.	Indicates wildlife value of natural area. WA

	Disturbance	The two major forms of natural (e.g. disease, flooding) and/or man-made (e.g. channelization, dredging) disturbance were identified, when the area appeared to be in a disturbed state.	Determines suitability of natural area for various uses and assesses the natural integrity of the area. FA, CP, CZ, SC
Use	Ownership	Principal owner of a natural area was identified.	Indicates potential security of area. FS, SP, CZ
	Current Use	The current use of a natural area was recorded.	Determines suitability of natural area for future use. CZ
	Zoning Category	The current zoning designation for the natural area was recorded.	Indicates security of natural area. CZ
	Security	The probable time frame within which physical alteration by man's activities may occur was estimated based upon existing uses, existing plans, zoning category, surrounding land use and evidence of land sales activities.	If a natural area is high priority and threatened with alteration, action must be taken quickly to preserve it.
Status	Occurrence	The relative frequency of the vegetation type or other natural features found in a natural area with respect to its frequency in Maryland's coastal zone was recorded.	Indicates relative importance of natural area. CZ
	Natural Integrity	The ability of the natural area to maintain itself in its present condition through natural regeneration was evaluated.	Assesses management requirements that will be needed to maintain natural area. CZ, SC
	Diversity	The number of different vegetation communities or other natural features was estimated.	Gives measure of heterogeneity important to natural area's value for scientific and educational purposes. WA, CZ
	Rare and Endangered Species	Animal or plant species recorded in a natural area that are rare or endangered were noted.	Indicates relative importance of area as a natural area. SP, CZ

WESTERN SHORE UPLANDS NATURAL AREA SITES

Anne Arundel County

Fairhaven Cliffs
Herring Bay View
Tratts Branch
Lyons Creek Valley
Jug Bay Marsh
Tracys Creek
Long Marsh
Rest Haven
Carrs Creek
Nutwell Road
Rockhold Creek
Deep Cove Creek
Jack Creek
Smith Creek
Lerch Creek
Incense Cedar
Stocketts Run Harwood
Beech, So. Red Oak
Red Birch
Cheston Creek
Smithsonian Center
-Muddy Creek
Camp Letts
Deep Pond
Mayo Point
Cedar Point
Glebe Branch
Weeping Willow
Beard's Creek
Hundley Pond
Green Ash
Patuxent River
-King's Branch to Rt. 50
Flat Creek
Thomas Point
Crepe Myrtle
Virginia Pine
Lake Ogelton
Chase Pond - Heron Lake
Harness Creek
Hercules Club, White
Birch
Poplar Point
Church Creek
Gingerville Creek

Pignut Hickory
Hock Tract
Severn Forest
-Martin Pond
North Basin
Hopkins Creek
-Brewer Pond
Round Bay Bog
South River Headwater
North River
Valentine Creek
Gumbottom Branch
Baldwin Pond
Towers Br.
-Little Patuxent
Little Patuxent -
Bluebell Meadow Island
Crofton
Patuxent River (Little
Patuxent to Penn.
Cent. RR)
Severn Run State Park
Patuxent River (Penn.
Cent. RR to Parkway)
Reese Pond
Little Patuxent
Patuxent River
(above Parkway)
Dorsey Run
Soldier Lake
Kelly Lake
Nursery State Forest
Stoney Run
Helonias bullata
Patapsco State Park
Arundel Gravel Pits
Raynor Heights
Scarlet Oak
Box Huckleberry
-Pinweed
Box Huckleberry
Lake Waterford
Pitch Pine
White Pond
Hines Pond
Letha Pond
Boyd Pond

Fresh Pond
Wharf Creek, Locust Creek
Bodkin Neck
Pinehurst
Pinehurst Road
Forked Creek (North)
Eagle Hill
Hunters Harbor
Cornfield Creek
James Pond
Gibson Island
Eaglenest Point
Cyprus Creek
Ray's Pond
Forked Creek
Ulmsteads Point
Bayberry
Deep Creek
Little Magothy River (mouth)
Little Magothy River
Sandy Point State Park
Bay Bridge (south)
Hackett Point
Meredith Creek
Whitehall Creek
Whitehall Creek (head)
Ridout Creek
Mill Creek
+6 sites not named

Baltimore City

Catonsville - Baltimore
Trail
Sycamore Maple
Patterson Park
Herring Run Park
Clifton Park
Lake Montebello
Druid Hill Park
Siberian Crabapple
Austrian Pine
Bitternut Hickory
Bing Cherry
Large-Leaf Magnolia
Golden Rain Tree

Baltimore County

Southwest Area Park
Patapsco River Marsh
Lake Roland
Catalpa
Sheppard Pratt Forest
 (English Elm)
Flowering Dogwood
Fort Howard
Black Marsh
North Point Creek
Rocky Point Park
Essex Skypark
Breezy Point
 -Browns Creek
Turkey Point
Muddy Gut
Back River
Middle River
Frog Mortar Creek
Seneca Creek
Carroll Island
Saltpeter Creek
Dundee Creek
 -Battery Point
Windlass River
Bird River
Gunpowder River Delta
Big Gunpowder Falls
Little Gunpowder Falls
Upland Wooded Swamp
+3 sites not named

Calvert County

Drum Point
Little Fresh Creek
Fresh Creek
Purgatory Creek
Hellen Creek Hemlock
 Preserve
Cove Point
Calvert Cliffs State Park
Woodland Branch-Calvert
 Cliffs
Peterson's Point
Willow Oak

Island Creek (upper)
Island Creek
Leonard Creek
Calvert Beach North
Jack Bay
Long Cove
Kitt Point-Cypress Swamp
Sheridan Point
Battle Creek-Cypress
 Swamp
Cypress
Parker Creek
Ramsey Creek
Hunting Creek
Chesapeake Heights
South of Carpenter Beach
Plum Point Creek
South of Camp Roosevelt
South Beach
Deep Landing
Patuxent River Marsh
 -Milltown Landing
Patuxent River-Graham
 Creek
Patuxent River-Hall
 Creek
Patuxent River-Ferry
 Landing-King's Branch
Lyons Creek
Fishing Creek
+4 sites not named

Cecil County

Susquehanna Overlook
Garrett Island
White Mulberry
Stump Point
Whitaker WMA
Principio Creek
Furnace Bay
Greenbank-Seneca River
Stony Run
Little North East
Elk Neck State Forest
Elk River
Rhodes MTN, ENSF
Pine Hills

Morning Cheer Camp
Black Hill, ENSF
Muddy Creek, Pond
Piney Creek Cove
Red Point Marsh
Bull Mountain
Sand Hill Camp
Above Sandy Hill
North of Timber Point
Camp Chesapeake
Elk Neck State Park
Greenbush Point
Turkey Point
Perch Creek
Paddy Piddle Cove
Back Creek (north)
Elk Haven WMA
Back Creek Pond
Randalia Area
Herring Creek
Courthouse Point (WMA)
Town Point
Pooles Creek-Manor Creek
Greenbrier Point
Great Bohemia Creek
Little Bohemia Creek
Burr Oak
Mill Pond-Scotchman Creek
Sweet Potatoe Creek
 -Morgan Creek
Veazey Cove
Ford Landing
Cabin John Creek
Pond Creek
Pearce Creek
Grove Neck
Grove Point
Money Creek
Foreman Creek
Back Creek (south)
Dowdel Creek
Knight Island
Hall Creek
Hall Creek Pond
Earleville, WMA
Ginkgo
Sassafras River
+6 sites not named

Charles County

Neale Sound
Persimmon Point #2
Fennell Point
Swan Point Neck
Woodberry Beach
Perry Br., Banks O'Dee
Dolly Boarmans Creek
Lloyd's Creek
Piccawaxen Creek
Persimmon Point #1
McReynold's Point
Allens Fresh Marsh
-Newport Marsh
Gilbert Swamp
Upper Gilbert Run
Cairo Mill Marsh
Pope's Creek - Indian
Shell Mound
Huckleberry
Zekiah Swamp
Chapel Point State Park
Clark Run
Hughesville Pond Fish
Mgmt. Area
Mill Dam Run
Port Tobacco
Kerrick Swamp
Gravel Pits
Jordan Swamp
Cedarville State Forest
Upper Mattawoman Creek
Piney Branch
Monroe Lake
Payes Swamp
Myrtle Grove Game Farm
Myrtle Grove Wildlife
Refuge
Mattawoman Creek NEA
Piscataway Park &
Scenic Easement
Pomonkey Creek
Chapman Point
Marsh Island
State Champ. Longleaf
Pine
Naval Ordinance Station
(North)
General Smallwood State
Park

Naval Ordinance Station (South)

Chicamuxen Creek
Doncaster State Forest
Maryland Neck
Riverside Wetland
Dowes Road Wetland
Tayloe Neck
Nanjemoy Creek
Ward's Run - Hilltop Fork
Burgess Creek
Mill Run
Cedar Point Neck
Simms-Henson Landing
Piney Church Road

Harford County

Pooles Island
Gunpowder Neck
Main Post
Gunpowder State Park
Landerick Camp
Champion Trees
Otter Point Creek
Otter Point
Bush River
Transmission Line
Monks Island
Aberdeen Proving Grounds
Spesutie Island
Dipper Creek
Swan Creek
Canal Creek
King's Creek

Prince George's County

Mattawoman Natural Area
Piscataway Park
Lower Piscataway Creek
Upper Piscataway Creek
Lake Ruth
Cedarville State Park
Cheltenham WHA
Cedarhaven
Patuxent River Park
Bowen WMA
Patuxent River Park (north)

Fort Washington National Park

Thrift Scenic Area
Broad Creek Marshes
St. Elizabeth's Farm
Hunters Mill Branch
Clinton Regional Park
Suitland Bog
Auth Village Wetland
Rosaryville State Park
Croom Station
Swan Point Creek
Mt. Calvert
Schoolhouse Pond
Depot Pond
Back Channel
Western Branch Marsh
Western Branch
Shortleaf Branch
Robert W. Watkins SP
Northeast Branch
District Branch
Mt. Nebo Branch
Patuxent River Park
(north)
Belts Woods
Bald Hill Branch
Folly Branch
Lottsford Wetlands Area
Allen Pond
Mill Branch Swamp
Patuxent Wetlands
Collington Wetlands
Woodward Pond
Ailanthus-Cucumber
Magnolia
Pale-leafed Hickory
Patuxent River - Bowie
Brookland
Duckettsville Wetlands
Cash Lake
Patuxent Wildlife Research
Center
Beck Branch
Brock Bridge Wetlands
Muirkirk Bog
Beaverdam Creek
Sauls Oak
Beltsville Bog
Indian Creek
Greenbelt Park

Prince George's County

Black Willow
Greenbelt Lake
Anacostia River Park
Northwest Branch Park
+9 sites not named

St. Mary's County

Pt. Lookout State Park
Scotland Beach
Cornfield Point
Pt. Look-In
Pt.-No-Pt.
St. Ingoes Neck
St. Champion Mountain
Laurel
Carroll Pond
Bay Forest Drive-
Biscoe Pond
Wise Marsh-Page Pond
Chancellor Point
St. Champion Amer. Holly

Deep Point
Cherry Field Point
Tarkhill Cove
Windmill Point
Craney Creek - Frog's
Marsh
Pine Hill Run - Tippitt
Pond
St. Champion Chinaberry
St. Mary's River
Naval Air Test Center
Biscoe Creek
Lane Creek
Poplar Hill Creek
White Point Beach
Flood Creek
Medley Creek
Lower Western Branch
St. Mary's Fish Mgt. Area
St. Mary's River State
Park
Greenhold Pond
Esperanza Point
Pond #1
Upper Western Branch

St. Andrew's Church Wetland
Glebe Run Wetland
Upper St. Mary's River
Wetland
Lows Run Wetland
Spring Branch Wetland
St. Mary's Headwater Wetland
Mill Creek
Greenwell State Park
Sotterly
Newtown Neck
Mulberry Point
Second Creek Wetland
Hillville Pond
Sandgates Wetland
St. Clement's Island
St. Catherine's Island
Canoe Neck Point
Tomakokin Creek
Choptico Run
Queentree Landing
Spring Creek
Killpeck Creek
Cool Springs
Oaks Coksey Road

EASTERN SHORE UPLANDS NATURAL AREA SITES

Caroline County

Idylwild Wildlife
Demonstration Area
Lake Chambers
Linchester Pond
Hunting Creek
Mitchell Run
-Tanyard Marsh
Hog Creek
Upper Fowling Creek
Gilpin Point
Fowling Creek
Upper Robbins Creek
Robbins Creek
Mill Creek Above
Williston Lake
Williston Lake
Mill Creek
Hemlock Stand
Watts Creek
Choptank River
Garland Ditch
-Engle Ditch

*Neck at Mouth of
Tuckahoe Creek
*Tuckahoe Flood Plain
Woods at Rt. 32
*Tuckahoe Flood Plain
Number 2
Waymans Wharf Long
Point Peninsula
Stony Point Woods
Hillsboro Lowerslope
Woods
Tuckahoe - US 328
Corner Forest
Tuckahoe Creek Wetland
at Hillsboro
Tuckahoe State Park
*Bridgetown Wooded Swamp
*Day Road
Swamp Hole Road
Cedar Lane Woodland
Mason Branch, Long
Marsh Ditch
Baltimore Corners Wetland
Jones Road Wetlands

Oldtown Branch Red
Maple Swamp
Bridgetown Road
Upper Choptank
River Marshes
Broadway Branch
Lake Bonney
Above Beetree Ditch
Trunk Line Road
Mud Mill Pond
*Truck Line Road
Mount Zion
Codspring Branch
*Mount Zion Wooded Swamp
*Temple Road Wooded
Swamp
Smithville Marsh
Smithville Community
Lake
Martinak St. Post and
Vicinity
Smith Landing - Pass a
Pac Landing
Watts Creek - Burrsville
Branch

Dorchester County

Hunting Creek
Buela Pond
Linkwood Wildlife
Management Area
Lower Marshyhope Creek
LeCompte Bryant
Fox Squirrel Refuge
Green Brier Swamp
Upper Green Brier Swamp
Susquehanna Neck
Bayshore Road
Punch Island Road
Meekins Neck Pond
*Pot Island Wood
Pons Point, Upper-Hoopess
Island
*Kerwin Neck
Fishing Point, Elliot
Island
Money Stump-Russel Swamp
Piney Swamp
Peters-Button Necks
Wallace Creek Marsh
Worlds End Creek - Hell
Hook Marsh
Beech Ground Swamp
Kentuck Swamp
Eagle Nest Kentuck Swamp
Little Blackwater River
Pitcher Dam Creek
Ross Creek
Higgins Millpond
*Chateau Wood
Transquaking River
Transquaking and
Chicamacomico Swamp
Upper Chicamacomico River
Big Millpond
Drawbridge Wetlands
Chicone Creek - Big Creek
Marsh
Upper Nanticoke Marshes
Gales Creek
Central Marshyhope Creek
Mill Creek Pond
Upper Marshyhope Creek
Borrow Pits
Cabin Creek Pond

Gray's Marsh
Blinkhorn Creek
Castle Haven Spit

Kent

Upper Sassafras River
Sassafras Lake
Shorewood Estate
Swantown Creek
Old Field Point
Turner Creek
Revenkes Creek
Lloyds Creek Spit
Yapp Marsh
Gut Marsh
*Betterton Riverside For.
Big Marsh - Howell Point
Meeks Point
Stillpond Prehistoric
Indian Village
Kinnigird Point
Stillpond Creek Head
Churn Creek
Copeland-Worton Point
Copeland Marsh
Fairlee Creek
Fairlee Lake
Dam Site - West
Fairlee Lake
Eagles Nest - Tolchester
Beach
Swan Point
Napley Green-Ringold
Point
Piney Neck
Remington Farms
Broad Neck - Walnut Pt.
East Fork - Lankford Creek
Lankford Creek - East
Fork Head
East Lankford Mill Pond
*Johnsontown-Shippen
Creek Woods
Chester River Estuary
*Chestertown Natural Park
East Chestertown
Morgan Creek
Above Urieville Pond

Urieville Pond
NW Fork Morgan Creek
Upper Morgan Creek
Buckingham Wharf
Millington Woods
Easta Ranch
Millington Mill Pond
Cypress Branch
Millington
Massey-Golts Ponds
St. Clements Church
Andover and Sewell
Branches
Millington Wildlife
Dem. Area
*Golts Bog
*Eastern Neck - Browns
Cove
Upper Davis Creek
Woodland
Upper Tavern Creek
*Jacob's Creek
Eagle's Nest - Hollow
Marsh Point

Queen Anne's

Kent Pt. Natural Area
Lower Kent Pt.
Kent Pt. Nat. Area:
Long Pt.-Tanners Creek
Batts Neck - Shipping
Creek
Warehouse Creek Area
*Warehouse Creek South
Shore
*Warehouse Creek North
Shore
*Cloverfields Woodland
Cox Creek
Kirwan Creek
*White Wildlife Refuge
Bennett Point
Wye Island
Wye Institute
Wye East River - Madam
Alice's Branch
Wye Mills Pond
Norwich Creek

Queen Anne's

*Smith's Woods
Mason Branch - Long
Marsh Ditch
*Blackbeard's Bluff
Wye River Head - Wye
River Marsh
Queenstown Talbot
Terrace Scarp
*Wye River - South at
St. Peter's Church
Abbott Cove

Piney Point - Gordon
Point
Robbin Cove
*Wright Tree Farm
Emory Creek
*Spaniard Creek
*Cherry Hill Branch
Brown's Branch
Kingston
Red Lion Branch
*Chester River - West
of Unicorn
Unicorn Lake - Unicorn
Branch
Pondtown Upland Swamp
*Hacketts Corners Woods
Stevens Corner
Andover Forest Preserve
Andover Branch
Andover Branch - Swell
Branch
*Stulltown Woods
Sudlersville Natural
Area
*Pond New Route
301 and 290
Upper Red Lion Branch
Big Woods Conservation Area
Unicorn Branch Headwaters
Crane Swamp
Templeville Swamp
Carson Corners Wooded Swamp
*Cleaves Fork Pond
Primrose Point
Chester River Head
Cabin Creek Area

Central Wye Creek
Pearl Creek

Somerset

Colbourn Creek
James Island State Park
*Woodcock Pond
Pocomoke Sound
Wildlife Area
North Pocomoke
Sound Wetlands
Fair Island Canal Marsh
Reward Farm
Pocomoke River Swamp
*Pocomoke Wharf
*Pocomoke Landing Branch
*Upper Pocomoke Swamp
Pollitts Branch
Wicomico Creek
*Monie Marsh
*Goose Creek
*Pine Pole Swamp
*Loretto Branch
*Legion Tree
Manokim River Banks
Benson Natural Area
Fairmount Neck
Annemessex Creek
Haines Point
Fair Island
St. James Church
*Ehbyman Neck
Head of Creek
Stewart Neck
*Dividing Creek
Charles Cannon Road
*Manokin Waters

Mill Creek Wildlife
Sanctuary

Wye Oak
*State Champion
Nordman Fir and Yew
Miles River Shoreline
Half Way Lyre Tree

*State Champion
English Walnut
Black Walnut Point (1)
Black Walnut Point (2)
*State Champion
Bigleaf Linden
Boone Creek
Warner Wildflower Point
*State Champion Sweetgum
*4 State Champion Tree
State Champion
Chestnut Oak
*State Champion Persimmon
Seth Demonstration Forest
Raccoon Creek
Choptank River Shore
South of Bruceville
Bow Knee Point
Choptank River Shore -
Miles Creek
Choptank River Marsh E. -
Kingston LDG
Choptank River Marsh
South of Kingston
Tuckahoe Creek
Lower Tuckahoe Creek
Norwich Creek
Lowes Point-Harbor Cove
Bald Eagle Point
Tilghman
Indian Harbor
Wades Point
Clairborne
Leadenham Creek
Rich Neck
Broad Creek - North
of Bozman
Balls Creek
Broad Creek
Porter Creek
Church Neck Point
*Deep Water Point
Irish Creek
Fairview Point
Plaindealing Creek
Pickering Creek
Howell Point
Grabin Point
Sawmill Cove
Trippe Creek

Talbot

Miles River
Upper Wye East River
Edmunson River
Connoly Cove
Three Bridge Branch
Road
Long Point
Chancellor Point
Upper Bolingbroke Creek
Turkey Creek

Wicomico County

Wetipquin Creek
Barren Creek
Riverton-W. Sharptown
E. Sharptown
Barren Creek - Ponds
Rewastico Mill Pond
Upper Quantico Creek
Lower Quantico Creek
Parrots Wharf - Wicomico
River
Bell Farm
Ditch Bank Road
Rockawalkin Creek Pond
Bell Creek
Sharp's Creek
Lake Wood Pond
Tony Tank Pond
Slab Bridge
Creek and Pond
Schumaker Pond
Walston Branch
Parker Mill Pond
Lower Beaverdam Creek
Johnson Pond
Middle Neck Branch
Brewington Branch
Peggy Branch
Wicomico Tributaries
Leonard Pond
Andrews Br. Mayer Br.
Jackson Br.
Pittsville Basin

Walston Conservation Area
Parsonburg Borrow Pit
Sturges Creek
Beech Island Horsebridge
Creek
Johnson Wildlife Refuge
Pocomoke River Marsh
Adkins Pond
Campbell Ditch
Wicomico State Forest
Asherwood Swamp
Borrow Pit
Burnt Mill Branch Marsh
Roasing Point
Ragged Point Cove
Wicomico River - Collins
Wharf
Nutters Neck
Rewastico Creek -
Athol Creek
Taylor's Trail
Forest Grove Branch
Herman Road

Worcester County

Hickory Point Cypress
Swamp
Dividing Creek
Pocomoke State Forest
Dividing Creek
Pocomoke River Swamp
Pocomoke State Forest
Corkers Creek
Pocomoke River Swamp
Pocomoke River Swamp
Pocomoke River Swamp
Pocomoke River Swamp
Milburn LN-POCM
Pocomoke River Swamp
Pocomoke State Forest
Miller Branch
Nassawango Creek
Furnace
Pocomoke State Forest
Pusey Branch
Pocomoke State Forest
Millville Branch

Big Cypress Swamp
Isle of Wight
Hastings Trace
Schwalbea
Jenkins (Heine's) Point
E. A. Vaughn Wildlife
Management Area
St. Paul Swamp and
Bill Mill Pond
Castle Hill Natural
Area
Jenkins Neck
Turville Neck, Jake
Gut
Turville Neck, Gum
Point
Herring Creek
*Taylorville Pine Forest
Upper Ayer Creek
Dennis Swamp
Wagram Creek
Union Branch
Pocomoke River Swamp
Above Pocomoke
Denny Branch - Pusey Br. -
Dividing Creek
Millville Creek -
Nassawango Creek
Bear Swamp
Corbin Branch
Upper Olive Branch
Parnell Branch
Kitts Branch, Trappe
Mill Pond
Tanhouse Creek
Pawpaw Creek
Sand Branch
Bind Hill Road Wetland
Tingles Pond
Radio Tower Wetland
Bishopville Pond
Trappe Creek Pond
*Trappe Creek Wood
Back Mill Branch
South Branch
Birch Branch
Furnace Branch
Maryland Beach Marsh

Appendix H

Archeological Resources Management Study

Purpose

Part I of this study was confined to an examination of the nature and distribution of archeological resources in coastal areas typified by straight and moderately indented coastlines. This included Calvert, Cecil, Charles, Harford, Kent, Prince George's and St. Mary's Counties and the Kent Island and Chester River portions of Queen Anne's County. An environmental predictive model of probable sites of archeological resources in those portions of Maryland's coastline was developed and the results of its application were mapped at county scale (1:63,360). A general examination was also made of those areas typified by marshy coastlines (Caroline, lower Dorchester, Somerset, and Wicomico Counties).

Part II efforts consist of (1) expansion of the study to include that part of Maryland's coastline typified by highly indented shorelines; namely Anne Arundel, Baltimore, Upper Dorchester, and Talbot Counties and the remainder of Queen Anne's County; (2) additional field investigations necessary to complete verification of the environmental predictive model of probable sites of archeological resources in those portions of Maryland's coastline examined during Part I of the study and to verify the model for those portions examined during Part II; (3) refinement of the application of the environmental predictive model through consideration of additional biophysical factors; and (4) mapping the archeological probabilities for both Part I and Part II of the study on U.S.G.S. Quad Scale Mylar Masters (1:24,000).

Study Approach

Environmental data collected and analyzed under Part I of the Study is used where applicable in the additional areas of investigation. Appropriate literature will also be reviewed for information relating to the prehistory of highly indented areas.

Information on known archeological sites within the study area from the files of the Maryland State Archeologist will be supplemented with data from the literature, archival studies, personal interviews, and ground inspection.

Field checking of representative coastal areas of each major shoreline type - straight, moderately indented, or highly indented - with a minimum interior setback of 200 feet was undertaken to provide a 10 percent sampling of each sub-unit of each major shoreline type. This provides sufficient systematically collected data to construct and verify an environmental predictive model of archeological site distribution in Maryland's coastal areas.

Information on present and predicted land use and other factors that produce stress on coastal archeological sites was obtained from aerial photograph interpretation, ground inspection, and maps. Publications of the Maryland Department of State Planning, individual county comprehensive plans, and archival sources were also used. Such information has been used to identify those areas containing archeological resources which are subject to significant development pressures and thus need immediate management attention.

Specifically, the work effort during the Archeological Resources Management Study involved the following tasks:

1. Classification of each major shoreline type (straight, moderately indented and highly indented) into biophysical sub-units based on the following factors: bank height, proximity to the intersection of two water bodies, water body type, water body access, shore type, and salinity in adjacent water body.

2. Mapping of the biophysical sub-units on U.S.G.S. quadrangle mylar masters for the area covered by the three major shoreline types and undertaking of sufficient field investigations to achieve a 10 percent sample of the linear measure of each biophysical sub-unit of each major shoreline type. This will involve supplementation of the field sampling conducted during Part I of the study effort for the straight and moderately indented shoreline areas and a full 10 percent sampling of the highly indented shoreline areas.

3. Characterization of each biophysical sub-unit as probable high, medium, low, or insignificant density of archeological sites and a statistical determination of the accuracy (confidence limits) of such characterization for each coastal county covered by the study.

4. Mapping of the information gathered on known archeological sites for the counties characterized by highly indented shorelines on Maryland Coordinate System County-Scale Mylar overlays (1" = 63,360).

Study Products

1. One set of Maryland Coordinate System mylar overlays at the county scale (1:63,360) showing known archeological site locations for those counties characterized by highly indented shorelines to supplement the known archeological site maps produced for those counties characterized by low and moderately indented shorelines in Part I of the study.

2. One set of U.S. Geological Survey (USGS) Quadrangle Mylar Masters (1:24,000) for those coastal areas characterized by highly indented, moderately indented, or straight shorelines depicting the characterization of each biophysical unit as probable high, medium, low, or insignificant density of archeological sites.

3. A final report to accompany the above map series which includes (a) a discussion of the objectives and method of approach of the study; (b) discussions of the environmental history, ethnographic adaptations and cultural prehistory of the areas under study; (c) a description of the development and application of the environmental predictive model to characterize each biophysical sub-unit according to one of the four probable archeological site density categories; (d) a description of the results of the field investigations including a statistical determination of the accuracy (confidence limits) of the mapped results of the predictive model (the site density classifications mapped on the USGS Quadrangle mylars); (e) a discussion and evaluation of factors producing stress on archeological resources in each coastal county studied; (f) specific management guidelines to promote better protection of Maryland's coastal archeological resources, including discussion of legal, educational, administrative and other procedures that could be used; and (g) identification of specific areas needing immediate management attention.

4. Artifacts collected in conjunction with the work effort are to be deposited with the office of the Maryland State Archeologist at the conclusion of this study.

Appendix I

Shore Erosion Studies

The Shore Erosion Mapping Study

This study consisted of the preparation of a series of maps of historical shorelines (Series A maps) and erosion rates (Series B maps) of Tidewater Maryland by the Maryland Geological Survey with funds from the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration made available through Maryland's Coastal Zone Management Program.

The base maps used in construction of the map series are the United States Geological Survey 7 1/2 minute topographic quadrangles. The map series consists of a set of four map portfolios, one for each of the following grouping of Maryland's coastal counties: Upper Western Shore, Lower Western Shore, Upper Eastern Shore, and Lower Eastern Shore. Each map portfolio is accompanied by two tables presenting Maryland shore erosion rate information in tabular form. The first table provides an overview of erosion rates to provide a regional perspective on shore erosion in Maryland. The second table gives more detailed information for the set of coastal counties covered by this Study. The information for each county is grouped by the water body or Bay shoreline contained within it, with sub-totals given for the shoreline covered by each USGS quadrangle.

Historical Shoreline Maps (Series A)

Information on historical shorelines was compiled by T. H. Slaughter from United States Coast and Geodetic Survey charts, and was presented in tabular form in Shore Erosion in Tidewater Maryland (1949). The U.S. Coast and Geodetic Survey charts used date as far back as 1841 and are of scales 1:10,000 and 1:20,000. To compile historical shorelines on the base maps at a scale of 1:24,000 a Kargl Reflection Projector was used which reduced the Coast and Geodetic Charts to the 1:24,000 scale. The historical shorelines superimposed on the base map were hand traced on a mylar overlay. Generally two shorelines are depicted in the map series but if the base map has been revised a third, intermediate shoreline is presented.

Erosion Rate Maps (Series B)

Using the historical shoreline maps, erosion rates in feet per year were calculated by dividing the linear recession by the number of years. Erosion rate categories were selected to be: <2 ft/yr (slight), 2-4 ft/yr

(low), 4-8 ft/yr (moderate) and >8 ft/yr (high) for time periods less than 75 years. Selection of the categories and time periods was based on accuracy of drafting technique and field observations of erosion in Tidewater Maryland. The names of each erosion category are relative to the total Tidewater Maryland erosion and are not intended to depict the severity of erosion for any particular area.

The erosion rate maps depict graphically the calculated rates on the U.S.G.S. 7 1/2 minute base quadrangle map.

Two special cases exist on the erosion rate maps:

- 1) For the barrier island along the Atlantic Ocean, simultaneous erosion of the ocean shoreline and deposition along the bay shoreline result in a migration of the island toward the mainland. In this situation, only changes in the ocean shoreline are mapped.
- 2) In the case of recurved spits and islands that have disappeared, erosion rates are measured perpendicular to the long axis of these landforms.

Accompanying the erosion rate maps are erosion rate histograms. The histograms show the percentage of the shoreline in a particular erosion rate category for the major bodies of water. The histograms generally show slight to low erosion rates for minor rivers and inlets and low to high erosion rates for Chesapeake Bay and major rivers. Presented on some of the erosion rate maps are erosion rate line graphs. The graphs were constructed from field measurements of shoreline erosion from 1969 to 1974. The location of the field measurements are denoted by an X and can be located by a small arrow. The Maryland Geological Survey is continuing the field measurements at over 200 sites in Tidewater Maryland and updated information may be obtained by contacting the Maryland Geological Survey.

The Shore Erosion Control Structures Mapping Study

The Coastal Zone Unit of the Energy and Coast Zone Administration in cooperation with the Water Resources Administration, both units of the Maryland Department of Natural Resources, has undertaken an effort to map and compile statistical information on shore erosion control structures on tidal shorelines in Maryland. The data was developed for use by state, local or regional authorities involved in the planning, regulation or review of activities in the coastal zone. It is not intended for use in determining precise positions, lengths, value, or effectiveness of individual control structures.

The base maps used in this inventory are the 7.5 minute topographic quadrangles of the U.S. Geological Survey. The primary data source used was color aerial photography (1971, 1:12,000) made available through the Wetlands Permit Section of the Water Resources Administration. Deficiencies in coverage and interpretation of the photography were rectified by field

checking of selected areas by boat and plane during 1975 and 1976. A secondary data source, the case files of the Wetlands Permit Section, was used to map structures which have received a State Wetlands License from 1971 through July 1976. Structures in this class have been divided into new and replacement categories. In Anne Arundel County, the above data sources were supplemented by an intensive field survey of the entire shoreline conducted by the Maryland Geological Survey in the summer of 1974.

Potential sources of error exist in the compilation and mapping process. The most significant potential error is the omission of existing structures due to misinterpretation of photography. Another error of omission is implicit in the use of case files, since a State Wetlands License is required only for structures at or below mean high water (mhw). Therefore, the inventory may be considered conservative with respect to the total length and number of structures represented.

Structures included in the inventory are defined as follows:

Bulkheads - All protection structures with a vertical face placed parallel to the shoreline at or near mhw. (Other structures, such as revetments and gabions, may have been placed in this category in cases in which they could not be differentiated from bulkheads in interpretation of the source data.)

Riprap - Sloping structure of loose stone construction placed parallel to the shoreline at or near mhw.

Concrete Revetment - Smooth sloping structure of interlocking block or concrete construction placed parallel to the shoreline at or near mhw.

Groin System - One or more structures placed perpendicular to the shore along a reach of shoreline to promote beach accretion.

Jetty - A structure placed perpendicular to shore along the edge of a tidal or river inlet to prevent shoaling of the channel by material transported by littoral currents.

Breakwater - A structure placed offshore, sometimes connected to the shore at one end, designed to protect the shoreline or harbor areas from wave action.

The inventory was undertaken with funds provided by the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration. The data was compiled and mapped by John R. Bowers and Jack I. Munn, Jr.

The results of the inventory and mapping effort are depicted in a map series covering Tidewater Maryland. The map series consists of four portfolio sets of maps, one for each of the same groupings of Maryland's coastal counties listed earlier.

The maps in each portfolio are accompanied by tables summarizing the length of each structure type by county and waterbody. The total shoreline length figures given are the extent of the entire tidal shoreline within the areas mapped. Excluded from such shoreline totals, however, were the shorelines of small marsh canals, guts, and small tributaries with an ephemeral tidal opening.

Information given in the tables is structured in the following manner. The tabular information for riprap and concrete revetments has been combined under a general heading "Revetment".

The length of groin systems refers to the length of the shoreline reach within which individual groins have been placed. The number of individual groins making up the system is also noted in the tables.

The occurrence of jetties and breakwaters is indicated by a footnote.

Where structures occur in combination, for example bulkheads and groins, the data is recorded only for the dominant structure. As a rule, structures parallel to shore with a vertical face are considered dominant with bulkheads considered dominant over riprap. However, the presence of both structures is indicated on the individual quadrangle maps contained in the portfolio.

Information on each structure type is broken down into two categories "Since 1971" and "Before 1971". The category entitled "Since 1971" refers to structures for which a state license has been granted for construction of a new structure since January 1, 1971. All other structures are categorized as "Before 1971" including structures for which a state license has been granted since 1971 to allow replacement structures to be constructed.

Appendix J

Land Acquisition and Development for Open Space,
Public Access and Recreation in Maryland

In Maryland, the problem of land acquisition and development for open space, public access, and recreation is addressed primarily by five state and federal funding programs: the Bureau of Outdoor Recreation Land and Water Conservation Fund, Maryland Program Open Space, Maryland Waterway Improvement Fund, Dingell-Johnson Fisheries Restoration Fund, and Pittman-Robertson Wildlife Restoration Fund. A description of each funding program follows:

Bureau of Outdoor Recreation Land and Water Conservation Fund (P.L. 88-578)

The Land and Water Conservation Fund Grant Program is a federal program created to assist local and state governments in providing regional and state-wide planning for public outdoor recreation areas, and financial assistance for the acquisition and development of such areas. The program is administered in Maryland by the Capital Programs Administration. To date Maryland has received \$30,525,180 from this fund. Appropriations in recent years are as follows: FY 1973, \$3,531,466; FY 1974, \$924,392; FY 1975, \$3,496,500; FY 1976, \$3,415,692; FY 1977, \$3,390,730.

Sixty percent of the money allocated to the State of Maryland is apportioned to the counties. The specific county apportionment is determined by a committee appointed by the Governor and is based on county population, per cent of urbanized population, and amount of existing recreation supply. Reimbursement to any subdivision will not exceed 50 per cent of the project costs. The counties reapportion their share to the municipalities within the county.

The remaining 40 per cent of the money allocated to the State of Maryland is used for state projects. Of this amount, a certain small percent is earmarked for projects in metropolitan Baltimore. The remainder is used to finance up to 50 per cent of the planning, acquisition and development costs of state recreation projects.

To be eligible for money from the Land and Water Conservation Fund, projects must conform with the guidelines in the Maryland Outdoor Recreation and Open Space Plan; and get state Clearinghouse approval (Board of Public Works) and, if applicable, regional Clearinghouse approval (Baltimore Regional Planning Council).

The Maryland Outdoor Recreation and Open Space Plan is a four volume document prepared by the Department of State Planning which includes: guidelines for all future open space and recreation planning; a study of activity demand and facility deficits; state policies governing open space and recreation; state-wide and regional recommendations for areas to be acquired and developed to meet identified needs; an outline of legal, fiscal and administrative guidelines to help implement goals; an overall program design for open space and outdoor recreation research, and acquisition and development of land. The Plan sets forth proposed acquisition and development schedules of federal, state and local governments in each region of the State. An acquisition priority system is developed based upon:

resident population within one hour driving time of the project site, comparison of natural values of alternative sites, danger of despoliation of potential project sites due to open space being diverted to more intensive uses, and need for additional state natural resource acreage in each county of the State.

Projects for new outdoor recreation opportunities receive higher funding priority than renovation projects. Multiple purpose projects, of which recreation may be only one aspect (such as a river impoundment), can also be eligible for Land and Water Conservation Funds. All outdoor recreation projects, including natural areas, walking paths, boat ramps, piers, camping and picnicking facilities, swimming facilities, and playgrounds can be eligible for funding from this program. Also, the State can buy an advance option on land for delayed development when it can be shown longer term use intentions dictate the need for immediate site purchase.

Money from the Maryland Program Open Space is often used to match federal monies made available by the Land and Water Conservation Fund.

Program Open Space

Maryland's Program Open Space was re-enacted in 1972 (HB 1443) in order to provide funds for a 10-year state program for the acquisition and development of outdoor recreation and open space areas. Funds are derived from a 0.5 per cent state transfer tax. The program is administered by the Capital Programs Administration. Appropriations in recent years are as follows: FY 1970, \$19,000,000; FY 1971, \$18,600,000; FY 1972, \$19,400,000; FY 1973, \$26,000,000; FY 1974, \$23,000,000; and FY 1975, \$24,700,000.

When available, Program Open Space money is matched with federal money from the Land and Water Conservation Fund. The money can also be used in complement with Waterway Improvement funds when development includes facilities to benefit the boating public on the State's navigable waters.

One half of the funds available under Program Open Space are to be used by State agencies and Baltimore City. The Department of Natural Resources and the St. Mary's City Commission are the only state agencies eligible to receive funds. This money is to be used for land acquisition projects only. Matching money from the Land and Water Conservation Fund can be used for either acquisition or development. All proposed state acquisition projects for a year must be submitted in advance to the General Assembly. A portion of this state share of the fund is to be used for making grants to the City of Baltimore for city park acquisition or development. All Baltimore City projects are to be reviewed by the Department of Natural Resources (DNR), and the cost reviewed by the State Board of Public Works.

The other half of the funds available under Program Open Space will be appropriated by the General Assembly to assist the 23 counties and Baltimore City in acquisition and development projects. A committee appointed by the Governor will determine the annual apportionment formula based primarily on current and 10-year projected population figures, as well as transfer tax revenues. Local projects must be evaluated by DNR and then sent to the Department of State Planning for review and comment. If DNR approves the project, and if it falls within annual apportionment limits, it may be sent to the State Board of Public Works for commitment of funds. All local projects for a given year must be submitted to DNR in advance.

Of the money available under Program Open Space for local governmental units, one half must be used for land acquisition (except in Baltimore where local money apportionment is available in addition to money provided directly from the state share). No local matching funds are required for acquisition, even if no federal matching funds are available. The other half of the local share can be used for acquisition and/or development. The State will supplement federal money so that 75 per cent of the total project cost is funded.

In order to qualify for funding under Program Open Space, all local projects must be a part of a comprehensive, local recreation plan. In addition, all state and local projects must be consistent with the recommendations in the Maryland Outdoor Recreation and Open Space Plan.

Program Open Space provides for the creation of an advance option and purchase fund so that options on critical land can be obtained in advance of purchase.

The process of selecting sites to be considered for acquisition with both Land and Water Conservation and Program Open Space funds is conducted by the Capital Programs Administration (CAP), Land Planning Services Division (LPS). The site selection process is not rigidly defined, but essentially consists of staff review of potential sites recommended by other DNR agencies, state legislators, local governments and the general public. The Land Planning Services Division staff also identifies sites for consideration on the basis of its review of resource inventories such as the Chesapeake Bay -- Inventory of Potential Shoreline Access, Recreation and Open Space Areas, Upland Natural Areas Study, Wetlands Vegetation Study, and Maryland Comprehensive Outdoor Recreation and Open Space Plan; and its state-wide analysis of land acquisition needs.

Maryland Waterways Improvement Fund

The Waterways Improvement Fund became a part of the Maryland Boat Act in 1965. The fund is created through a 4 per cent excise tax imposed on boat sales, a boat title tax, a boat registration fee, and an annual allocation of \$400,000 from vehicle fuel tax revenues. Fund expenditures are for (1) the marking and dredging of channels and harbors not within the scope of operation of the U.S. Coast Guard and the Army Corps of Engineers, (2) the clearing of debris, aquatic vegetation and obstruction from navigable waters of the State, (3) the provision of hydrographic survey engineering services, and (4) the construction of facilities of benefit to the boating public -- such as marina renovation, boat ramps, piers, and boat launching areas including accessory facilities (parking areas, comfort stations, etc.). The program is administered within the Department of Natural Resources by the Capital Programs Administration's Waterway Improvements Program. Since the inception of the Waterway Improvement Program, 458 projects have been completed with an expended value of \$2,493,682. One hundred thirty-three approved projects are incomplete (93 are presently under construction) with an obligated fund value of \$6,840,039.

The funding of dredging, channel marking and debris removal projects (as well as boating facility construction on state owned land) is 100 percent of cost. The contribution of the Waterways Improvement Fund to the construction of boating facilities on county owned sites is limited to 50 per cent of the cost in excess of \$25,000. If the project cost is less than \$25,000, it may be financed solely by the Waterway Improvement Fund.

All requests for project funding must be submitted, with a brief description of each project, to the legislature in the Department of Natural Resources annual budget. An exception is debris removal or boating facilities projects whose cost to the Waterway Improvement Fund is less than \$5,000. Such projects need only the approval of the Capital Programs Administration. Total expenditures under this special provision are not to exceed \$125,000.

Proposed boating facility construction projects are reviewed by the Waterway Improvement Program, and evaluated on the basis of the state-wide distribution of boating intensity and facility need, and facility needs expressed by counties. To date, setting priorities for projects has not been necessary, since the available funding has been adequate for all proposed projects.

Waterway Improvement Funds are not matched with Program Open Space Funds, but they may be used by the counties in complement with such funds. In addition, counties may apply for matching funds from the Land and Water Conservation Fund.

Dingell-Johnson Federal Aid in Fish Restoration Act
(Act of August 9, 1950; 16 U.S.C. 777-777k)

The Dingell-Johnson fish restoration act authorizes the Secretary of the Interior to cooperate with the states through their respective state fish and game departments in fish restoration and management projects. These projects are to be designed for the restoration and management of all species of fish which have material value in connection with sport or recreation in the marine and/or fresh waters of the United States. Dingell-Johnson funds first became available in 1951. Maryland apportionments in recent years are as follows: FY 1972, \$134,350; FY 1973, \$121,000; FY 1974, \$146,300; FY 1975, \$168,500; and FY 1976, \$202,000. The program is managed in Maryland by the Department of Natural Resources, Fisheries Administration.

The Dingell-Johnson Act provides for funding on a 75 per cent - 25 per cent basis for a variety of fisheries related projects including fish pond construction, fish stocking and fish hatchery construction. In Maryland, the 25 per cent state portion comes from the hunting and fishing license special fund. The problem of open space land acquisition and recreation development is most pertinently addressed by provision for construction of fishermen facilities. These facilities may include fishermen access roads and parking areas, fishing boat docks, boat launching ramps, sanitary facilities, and fishing piers.

In Maryland, Dingell-Johnson funds have been used primarily for fisheries management projects. To date \$34,092 of Dingle-Johnson funds (matched with \$11,365 in state funds) have been used for land acquisition in Maryland.

Pittman-Robertson Federal Aid in Wildlife Restoration Act
(Act of September 2, 1937; 16 U.S.C. 669-669b, 669c-669i)

The Pittman-Robertson Wildlife restoration act authorizes the Secretary of the Interior to cooperate with the states through their respective state fish and game departments in wildlife restoration projects. These projects are to be designed for the selection, restoration, rehabilitation, and improvement and maintenance of areas of land or water adaptable as feeding, resting, or breeding places for wildlife. Funds may be used for site acquisition or construction and research; and are provided on a 75 per cent federal - 25 per cent state cost-sharing basis. All projects must conform to a comprehensive wildlife resource

management plan submitted by the State to the Department of Interior. The comprehensive plan is to be updated at least every three years.

Apportionment of funds is based upon two sections referred to as "section 4a" and "section 4b". Section 4b funds accrue from taxes imposed on pistols, revolvers, and bows and arrows, and are apportioned on the basis of state population (except that each state shall apportion not more than 3 per cent and not less than 1 per cent of these revenues). Section 4b funds may be used for, but are not restricted to, hunter safety programs. Section 4b funds in excess of those needed for hunter safety programs may be added to Section 4a funds which are used for wildlife-restoration projects. Section 4a funds accrue from taxes imposed on several hunting related articles, and are apportioned on the basis of state area and number of state hunting license holders (except that such apportionments shall be adjusted so no state receives less than 0.5 per cent nor more than 5 per cent of the total amount apportioned). Maryland's FY 1976 apportionment totaled \$537,821 of which \$165,303 could be used for hunter safety. To date, \$707,170 of Pittman-Robertson funds matched with \$243,582 in state funds have been used for site acquisition. A total of 30,250 upland acres, 25,988 marsh acres, and 3,100 water acres have been acquired under this program.

Other Land Acquisition Processes

Other programs and processes relating to land acquisition in Maryland include the State claim to federal surplus lands, the Nature Conservancy, Wetlands Acquisition Fund, and the Maryland Environmental Trust. The availability of federal surplus lands is announced through the A-95 Clearinghouse process. The Maryland Department of State Planning reviews state and local claims to federal surplus lands and makes recommendations to the U.S. General Services Administration which is responsible for disbursing surplus lands. The Nature Conservancy, a private conservation organization which makes funds available for land acquisition, works in close cooperation with Program Open Space. The Wetlands Acquisition Fund is derived from the transfer of license to state-owned wetlands, and is used for the purchase of privately owned wetlands.

The Maryland Environmental Trust is administratively located in the Department of Natural Resources. The Trust was created for the purpose of "conserving, improving, stimulating, and perpetuating the aesthetic, natural, health and welfare, scenic, and cultural qualities of the environment, including but not limited to land, water, air, wildlife, scenic qualities, open spaces, buildings or any interest therein, and other appurtenances pertaining in any way to the State of Maryland, and through educational and other media to encourage and motivate the populace of the State and others to do so, and to promote continuing interest in and the study of such matters."

To carry out its duties the Trust: (1) acquires and maintains properties of aesthetic, scenic, cultural, or public health and welfare value by gifts, purchase, or bequest; (2) receives appropriations, gifts, or bequests to carry out its purposes; (3) cooperates with and assists state, federal, and local governmental agencies, private or public foundations, and individuals to further the purposes of the Trust; and (4) promotes the establishment of local committees to work with the Trust in furtherance of the objectives of the Trust at the local level.

Once an acquisition project is recommended by DNR agencies, legislators, local governments, and the general public, it enters a master planning process conducted by Land Planning Services. A flow diagram and general description of

this process follows. Depending upon the scale and complexity of the project, several of the discrete steps described below may be combined.

1. Develop Evaluation Report

This step will produce a general evaluation of possible additions to the system, attributes and limitations of site, potential types and levels of use, environmental and socio-economic impacts, and desirability for future study.

2. Circulate Report for Review and Approval

The evaluation report will be distributed to interested parties for comment on the desirability for further study and the necessity of a meeting to discuss the contents of the report. Possible recipients would be DNR agencies, Department of State Planning, the initiator, and the Deputy Secretary. The report will be presented and discussed and the decision to continue study formally made by the Assistant Secretary for Capital Programs or by higher authority depending on the source of the proposal. Department of Natural Resources agencies and other interested participants would then be asked to provide information and studies to further develop the Concept Plan.

3. Develop Prospectus

This step will produce a public information document presenting the decision to proceed with planning of an area, backed up with evaluation report findings to get early support for future acquisition, development and use. The prospectus will be reviewed and approved by the Assistant Secretary for Capital Programs prior to distribution.

4. Develop Site Description

This step will develop a site description of the area under study as an input to the Preliminary Concept Plan. The site description will include a detailed inventory of natural and man-made resources, rare and endangered species, natural conditions and processes, attributes, and limitations to use of the area. The Site Description will be a staff document approved by the Director of Land Planning Services (LPS).

4a. Develop Interim Management Plan

This plan will describe the management and development which, while facilitating use of the property's natural resources, will not preempt or commit the property to any use or mix of uses; e.g., continued agriculture, hiking, trails, parking areas, sanitary facilities, temporary buildings, etc. The Interim Management Plan will be approved by the Assistant Secretary for Capital Programs and affected operating agencies.

5. Regional Statement

This step will produce a complete description of the regional setting of the area under study as an input to the Preliminary Concept Plan. The regional statement will discuss demographic and economic factors influencing demand; traffic and land-use impacts on the area, and the relationship of the area to the existing and proposed recreational systems at local, county, state, federal and private levels.

6. Develop Preliminary Concept Plan

This step will develop several preliminary concepts and a preferred alternative containing: acquisition, general land use schemes, resource management approaches, circulation patterns, development character and scale, capacities by use, and environmental and socio-economic effects. The Preliminary Concept Plan will be developed using inputs from DNR agencies, other state and local agencies, and citizens and citizen groups. The environmental effects of the various concepts explored will also be studied in this step. These assessments will be used to prepare the final Environmental Effects Report required for the Maryland Environmental Protection Act (MEPA) and permit applications. The Preliminary Concept Plan will be reviewed by all participants and approved for hearing by the Assistant Secretary for Capital Programs.

7. Hold Public Hearing

The Preliminary Concept Plan will be presented and followed by a question and answer period prior to presentation of statements. The hearing record will remain open for 30 days. Modifications to the plan will be authorized and completed through daily staff coordination, unless the concerns are of sufficient number or magnitude to require a hearing prior to Step 8.

8. Present Concept Plan for Approval

The Concept Plan (including an acquisition map) will be presented to the Secretary for approval. Upon approval the material will be published and distributed.

9. Develop Budget Requests

Based upon the Concept Plan additional funds may be requested for development of the Master Plan and early acquisition. Requests will follow the normal budget review procedure.

10. Develop Preliminary Master Plan

This step will draw on the necessary government and private interests to produce the following components, which together comprise the Preliminary Concept Plan:

Preliminary Acquisition Plan

Map, status of parcels, schedule of acquisition, and budget requests.

Preliminary Development Plan

Siting of roads, utilities, and facilities; specified capacity, architectural style, materials, orientation and spacing, landscape details and phasing of construction.

Preliminary Management Plan

The resource management and area operation programs, equipment, and personnel requirements, maintenance and operating costs.

Preliminary Environmental Effects Reports

A presentation of the environmental effects of construction and management to meet Maryland Environmental Protection Act and permit application requirements.

Preliminary Capital Program

Capital Budget requests by development phase for five year plan. Annual budgets and long-term programming.

The development of these components will be coordinated in DNR by a Project Planner in LPS and approved for public hearing by the Secretary of DNR.

11. Public Hearings on Preliminary Master Plan

The public hearing should be scheduled to coincide with the hearings required for MEPA review. Permit application hearings may also be completed at this time; if so, hearing officers may be provided by Department of State Planning or other agencies.

12. Presentation of Master Plan

The Master Plan will be presented to the Secretary for approval. The presentation will begin with a synopsis of the project history, including hearings and fund appropriations and proceed through the components of the Master Plan. Upon approval the material will be published and distributed.

All appropriations of State funds for land acquisition and development must be approved by the Maryland General Assembly. Each year, the Governor of Maryland recommends to the General Assembly in the form of a bill, the appropriation for the next fiscal year. The Capital Programs Administration, using information provided by Land Planning Services and Program Open Space, determines priorities for land acquisition projects and drafts the appropriations bill. In recent years land acquisition projects receiving the highest priority ranking have been those which are part of a continuing park development program, or represent a

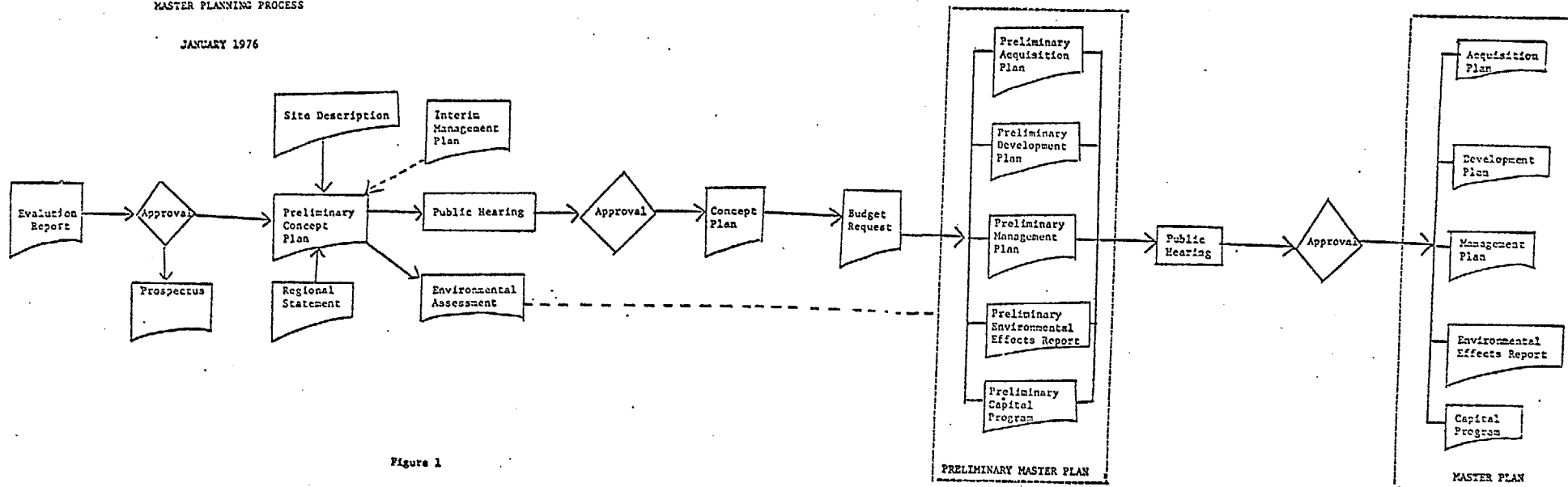
unique land acquisition opportunity. Such projects generally exhaust each year's allocation of land acquisition funds.

The process of site acquisition is conducted under the direction of the Maryland General Services Administration (GSA), with Program Open Space serving as a liaison between GSA, the land owners and the Department of Natural Resources. The General Services Administration obtains two independent appraisals of the land, hires a lawyer to perform a title search, and has the land surveyed if necessary. The General Services Administration then handles negotiations with the land owners. A contract of agreement between GSA and the land owners must first be approved by Program Open Space, and then by the Board of Public Works. Upon both approvals, GSA is authorized to reach settlement with the land owners.

Within Maryland's program for land acquisition and development for open space, public access and recreation there is ample opportunity for Coastal Zone Management to promote increased shorefront access. The two major land acquisition and development planning units (in terms of available funding) within DNR, Land Planning Services and the Waterways Improvement Program, have expressed a need for and a desire to use, the technical expertise of the Coastal Zone Unit. The Waterways Improvement Program needs assistance in selecting specific boating facility sites, encouraging Program Open Space to acquire sites that may be developed with Waterway Improvement Funds, developing environmentally acceptable construction plans, and obtaining necessary permits from state and federal regulatory agencies. Land Planning Services needs additional experienced manpower to document the need for additional shorefront access in Maryland, and to aid in the planning of selected shorefront access sites.

DEPARTMENT OF NATURAL RESOURCES
Capital Programs Administration
Land Planning Services
MASTER PLANNING PROCESS

JANUARY 1976



Appendix K

Local Government Involvement

General

Maryland's Procedures for assuring local government involvement in its Coastal Zone Management Program are described in this appendix. The procedures reflect application of the federal Office of Coastal Zone Management's threshold paper to this program element. (The threshold paper set minimum levels of performance to meet the intent of the national legislation, the Coastal Zone Management Act.)

Requirement 1 - Adequate information on the Coastal Zone Management Program is to be made easily available to local governments on opportunities and methods of participation. In Maryland five basic steps were taken to comply with this requirement:

Many informal meetings were held with elected officials or their representatives, planning directors and staff, administration and economic development committee heads, to familiarize local government leaders and appropriate agencies with the Coastal Zone Management Act, its intent, and Maryland's direction in program development.

From these contacts, mailing lists, and regular distribution of program development reports and concept papers were begun. Joint agency and public meetings were held during the inventory stage of projects, when input by local governments would be of particular value.

Formal written requests for information and opinion on program development elements were sent to all coastal jurisdiction elected officials and planning officers to assure formal local government involvement in program development.

Each coastal jurisdiction was asked to designate one local agency or individual as the Coastal Zone Management Program liaison in preparation of the management strategy and local role during implementation. Liaison tasks included identifying local priorities, and promoting use of technical materials derived from inventory projects.

Formal local government approval of each program element and the entire program, will be sought from local jurisdiction heads at the time of submission of the final program document.

Requirement 2 - Particular efforts should be made to encourage local governments to make their views and recommendations known to the lead Coastal Zone Management Program agency. Maryland's five efforts were:

Formal requests to local elected officials were made early in program development for information on their existing land use management authorities, inventories of existing and planned major facilities, and local goals and objectives in the coastal zone. They were examined for implications and compatibility with the land and water uses portion of program development.

To promote a better working relationship between state and local governments, and to provide more specific technical information to local governments, several coastal zone studies of particular interest to local governments were designed in a county by county format (i.e. the Shore Erosion Study and the Upland Natural Areas Study). The Recreational Boating Study and the dredging and dredged material study provided additional opportunities for local government involvement in major projects dealing with the land and water uses element of the Program.

Program development concept papers were distributed for review and comment by counties on management elements and overall program strategy, with follow-up conversations and meetings held as requested. However, bringing Coastal Zone Management Program draft reports to the attention of rural jurisdictions did not result in the level of local involvement the Coastal Zone Unit had sought. Therefore, the Coastal Zone Unit committed more staff time to local government coordination. The Coastal Zone Unit also pursued funding for additional local manpower, where requested, to supplement local priorities and management capabilities in addressing program elements from the local and state perspectives.

Special studies which addressed the role of local government were conducted, especially on the systems and roles of government in handling landside impacts of Outer Continental Shelf development.

The role of regional agencies was essentially to collate and reflect regional priorities in concert with local jurisdictions. The Tri-County Council of Southern Maryland and the Delmarva Advisory Council have served, at the request of local governments, on the Coastal Zone Unit's Major Facilities Study, and have otherwise provided information needed by local planning offices as requested.

Requirement 3 - Local governments are to be made aware, and have the opportunity to assist in, the preparation of the Program when decisions affecting them are being made. There were four major steps taken in Maryland:

Local government involvement in Maryland's Coastal Zone Management Program initially focused on helping the State identify coastal areas, or uses of more than local concern. Alone, such activities did not provide an adequate administrative role for local governments. A primary mechanism to enhance their role has been the provision of regional and local manpower to expand technical services of local government.

Through selected coastal issues, the Coastal Zone Unit sought to construct a framework for the proper management roles of local governments and the overall Coastal Zone Management Program. Some examples of the State being able to serve as a technical advisor on coastal issues affecting local governments include the Delmarva Intracoastal Waterway Project and the Otter Point Creek Study in Harford County. By itself, however, this approach did not obtain a consensus on the proper role of the Coastal Zone Management Program, since resolving statewide problems solely on a case by case basis did not demonstrate the comprehensive nature of the Program.

Given the difficulties addressed above, mutually beneficial work efforts seemed a good way to determine the role each local government would have in directing growth and protecting coastal resources. These efforts were accomplished by local government contracts with the Coastal Zone Unit, with the purpose of making state and local activities more consistent. These contracts provide for local manpower assistance. The ultimate aim was to enable local governments to manage their resources in a manner that builds public and government trust, and provides the capability to act in controversial situations with other units of government.

Requirement 4 - The management program should show how specific comments raised about the Program by local government involvement can be dealt with and brought to the attention of the policy making level of the Coastal Zone Unit. There were three important approaches taken in Maryland:

Local government concerns are expressed and discussed by the State Chesapeake Bay and Coastal Zone Advisory Commission's Supplemental Committee. The Commission is a state policy advisory body to the Secretary of the Department of Natural Resources and the Governor. All coastal jurisdictions and the Coastal Zone Unit staff are represented on the supplemental committee.

The Coastal Zone Unit staff, through its day-to-day contacts with state and local permitting, planning, and construction activities in the coastal zone, provides a direct avenue to the Coastal Zone Unit director, and thereby to the policy making level of the lead agency.

All local jurisdictions and affected regional agencies use A-95 Review yearly as one means for determining if the developing Coastal Zone Management Program is consistent with their own plans and objectives.

Requirement 5 - Documentation

The Coastal Zone Unit will submit statements from all local and regional units of the government in the coastal zone in the final program document, describing their commitment to, and role in, administering Maryland's Coastal Zone Management Program. Supporting local government documentation on program development, other than that provided at that time, will remain on file at the Coastal Zone Unit Office, for inspection.

Requirement 6 - Public Hearings

Minutes or tape recordings have been made at all public meetings held in the development of the Coastal Zone Management Program. They will remain on file at the Coastal Zone Unit office for inspection. A summary of these meetings and public hearings yet to be held, will be attached to the final Environmental Impact Statement produced by the federal Office of Coastal Zone Management.

One indication of the extent of local government involvement in program development is the number of local government staff members assigned by county governments to work with the Coastal Zone Unit on developing a Coastal Zone Management Program. Below is a list of personnel on the local level responsible for developing a Coastal Zone Management Program in Maryland.

Local Level Personnel Responsible
For Program Development

Anne Arundel County

Florence Kurdle

A. A. Co. Planning & Zoning Officer

(liaison to Coastal Zone Unit for County Executive)

Thomas H. Ventre, Sr., Planner

Thomas L. Ervin, Coastal Zone Planner

A. A. Co. Office of Planning & Zoning

Baltimore City

Sheldon Lynn, Dept. Dir.

Baltimore City Dept. of Planning

(liaison to Coastal Zone Unit for Mayor)

David Carroll, Principal Planner

Alain Jaramillo, Asst. Planner

Baltimore City Dept. of Planning

Baltimore County

Paul Solomon, Head, Environmental Studies Section

Baltimore Co. Office of Planning & Zoning

(liaison to Coastal Zone Unit for County Executive)

Carey Hinton, Coastal Zone Planner

Baltimore Co. Office of Planning & Zoning

Calvert County

Lawrence Bowlby

Calvert Co. Planning Dir.

(liaison to Coastal Zone Unit for Co. Bd. of Commissioners)

*Vivian Marsh

Coastal Zone Technical Coordinator

Calvert Co. Planning Office

Caroline County

Edwin G. Richards

Caroline Co. Administrator

(liaison to Coastal Zone Unit for Co. Bd. of Commissioners)

Cecil County

Allan Davis, Director

Cecil Co. Office of Planning & Economic Development

(liaison to Coastal Zone Unit for Co. Bd. of Commissioners)

Charles County

James Redmond, Jr.
Charles Co. Planning Dir.
(liaison to Coastal Zone Unit for Co. Bd. of Commissioners)

****Michael Rubala,**
Coastal Zone Technical Coordinator
Charles Co. Planning Office

Dorchester County

Hobert Adams
Dorchester Co. Director of Planning
(liaison to Coastal Zone Unit for Co. Bd. of Commissioners)

Harford County

Kenneth Green, Director
Harford Co. Dept. of Planning & Zoning
(liaison to Coastal Zone Unit for County Executive)

William Sivertsen,
Urban Design Specialist
William Carroll, Coastal Planner
Harford County Dept. of Planning & Zoning

Kent County

Peter Johnston
Kent Co. Planning Director
(liaison to Coastal Zone Unit for Co. Bd. of Commissioners)

Prince Georges County

Roy Jeffrey, Sr.
Environmental Planner
Prince Georges Co. Dept of Program Planning & Economic Development
(liaison to Coastal Zone Unit for County Executive)

Queen Anne's County

Robin Wood
Queen Anne's Co. Planning Administrator
(liaison to Coastal Zone Unit for Co. Bd. of Commissioners)

Somerset County

Richard Pollitt, Executive Dir.
Somerset Co. Planning & Zoning Office
(liaison to Coastal Zone Unit for Co. Bd. of Commissioners)

*****Edward Phillips,**
Coastal Zone Technical Coordinator to
Somerset Co. Planning & Zoning Office

St. Mary's County

Frank Gerred
St. Mary's Co. Planner
(liaison to Coastal Zone Unit for Co. Bd. of Commissioners)

St. Mary's County (Continued)

*Vivian Marsh and **Michael Rubala
Coastal Zone Technical Coordinators to
St. Mary's County Planning Office

Talbot County

David Boehm
Talbot County Planner
(liaison to Coastal Zone Unit for County Council)

Wicomico County

Merrill Burhans, Jr., Director
Salisbury-Wicomico Co. Planning & Zoning Commission

Matthew E. Creamer
Wicomico Co. Administrative Dir.

Robert L. Kiley, Executive Dir.
Salisbury-Wicomico Economic Development, Inc.
(all liaison to Coastal Zone Unit for County Council)

***Edward Phillips, Coastal Zone Technical Coordinator to
Salisbury-Wicomico Co. Planning & Zoning Commission

Worcester County

Harold Morris
Worcester Co. Planning Director

John Yankus
Worcester Co. Administrative Director
(both liaison to Coastal Zone Unit for Co. Bd. of Commissioners)

***Edward Phillips, Coastal Zone Technical Coordinator to
Worcester Co. Planning Office

*serves both Calvert & St. Mary's Counties
**serves both Charles & St. Mary's Counties
***serves Somerset, Wicomico and Worcester Counties

In addition, the concerns of local and state governments, citizens, and special interest groups are expressed by their representatives on the Supplemental Committee of the Chesapeake Bay and Coastal Zone Advisory Commission, a state policy advisory body. The following is the list of representatives on the Supplemental Committee:

Chesapeake Bay Coastal Zone Advisory Commission and Supplemental Committee

Commission Members

Richard Lankford, Chairman
Albert I. Baker
Dr. Lawrence Maryanov
John Thomas Parran, Jr.
Dr. F. Prescott Ward

Supplemental Committee Members

(Mrs.) Ilia Fehrer
Representative for Lower Eastern Shore
Regional Citizens Advisory Group on
Coastal Zone Management Program

Walter Harris
Representative for Upper Eastern Shore
Regional Citizens Advisory Group on
Coastal Zone Management Program

Arnold Petersen
Representative for Western Shore
Regional Citizens Advisory Group on
Coastal Zone Management Program

Blair Robinett
Representative for Central Eastern Shore
Regional Citizens Advisory Group on
Coastal Zone Management Program

Jack Witten
Representative for Lower Western Shore
Regional Citizens Advisory Group on
Coastal Zone Management Program

Alvin L. Simon, Chairman
Maryland Boat Act Advisory Committee

James W. Cheevers
Maryland Ornithological Society

A. F. Cherney
Bethlehem Steel Corp.

Daniel Clarke
Maryland Association of Realtors

Paul Cresthull
Maryland Archeological Society

Robert George
Greater Baltimore Committee

F. L. McKee
Delmarva Power & Light Co. of Maryland

David Perry
Home Builders Assn. of Maryland

Donald Schroeder
Maryland Petroleum Assn.

Arthur Sherwood
Chesapeake Bay Foundation

Frank T. Steuart
Steuart Petroleum Company

James Thomas
Izaak Walton League

(Ms.) Doris Trainor
Maryland Chamber of Commerce

William Weaver
Maryland Bankers Assn.

Thomas Wieland
Maryland Watermen's Assn., Inc.

Honorable Robert A. Pascal
Anne Arundel County Executive

Warren Seipp
designee for Honorable Donald Schaefer,
Mayor Baltimore City

(Mrs.) Marion J. McCoy
designee for Honorable Theodore Venetoulis,
Baltimore County Executive

Honorable C. Bernard Fowler, President
Calvert Co. Bd. of County Commissioners

Honorable Curtis Andrew, President
Caroline Co. Bd. of County Commissioners

Allan Davis
designee for Honorable Mary A. Maloney, President
Cecil Co. Bd. of County Commissioners

Hobert Adams
designee for Honorable Leonard Dayton, President
Dorchester County Bd. of County Commissioners

William G. Carroll
designee for Honorable Charles B. Anderson
Harford County Executive

Honorable Roland T. Larrimore, President
Kent County Bd. of County Commissioners

Roy Jeffrey
designee for Honorable Winfield M. Kelley, Jr.
Prince Georges County Executive

Honorable John M. Ashley, Jr., President
Queen Anne's Co. Bd. of County Commissioners

Richard Pollitt, Jr.
designee for Honorable Dennett L. Butler, President
Somerset Co. Bd. of County Commissioners

Frank Gerred,
designee for Honorable James M. McKay, President
St. Mary's County Bd. of County Commissioners

Honorable J. Franklin Brinsfield
Talbot County Council

Honorable Albert J. Bailey, President
Wicomico County Council

John Yankus
designee for both Honorable Mark O. Pilchard, President
Worcester Co. Bd. of County Commissioners and
Honorable Harry W. Kelley, Mayor
Town of Ocean City

Henry B. Stone
Delmarva Advisory Council

Jorge A. Valladares
Maryland-National Capital Park & Planning Commission

C. Bowie Rose
Regional Planning Council

Gerald McKinney
Tri-County Council for Southern Maryland

Joseph J. Murnane
Maryland Assn. of Counties

Simon McHugh
Lt. Governor's Office

John P. Hewitt
Energy Policy Office of Maryland

Douglas Wilson
designee for John Cecil, Deputy Secretary
Maryland Department of Agriculture

William Pate, Deputy Secretary
Maryland Dept. of Economic & Community Development

Don Elmore
Maryland Dept. of Health & Mental Hygiene

Robert L. Rubelmann
Md. Dept of Natural Resources

Edwin Thomas
Maryland Dept. of State Planning

Paul Farragut
Maryland Dept. of Transportation

Walter C. Boyer
Maryland Port Administration

Harold C. Scholl
Soil Conservation Service

Local Government Technical Assistance Scopes of Work
to Establish Administrative Roles

Calvert, Charles and St. Mary's Counties

I. OBJECTIVES:

- I. To update local officials (Commissioners and Planners) on status and progress of the Coastal Zone Unit on a periodic basis.

Procedures:

- A. Maintain accurate files, records
- B. Maintain contact with Coastal Zone Unit at the State level (weekly)
- C. Maintain list and updates on Federal and State ongoing research and management programs

- II. Assist in the assessment of County Comprehensive Plans in relation to Coastal Zone Unit

Procedures: Review and Assess with Planning & Zoning

- A. Comprehensive Plan for development
- B. Subdivision Regulations
- C. Water and Sewer Plans
- D. Zoning Ordinances

- III. To provide coordination with existing State and Federal programs to and between the proper local elements. (Elements: governing units, planners, commissions, and boards)

Procedure: Provide up to date information on programs conducted at local, State and Federal levels

1. Local

- a. Geographic areas of particular concern
- b. Preservation of prime agricultural lands
- c. Water catchment areas
- d. Coastal use capabilities study
- e. Tidal wetlands
- f. Major facilities study

2. State

- a. Lower Potomac River Basin Study
- b. Patuxent River Basin Study
- c. West Chesapeake Bay Basin Study
- d. Bay Bottom Survey
- e. Recreational Boating Study
- f. Shoreline mapping studies
- g. Wetland **vegetation mapping**
- h. Major facilities sitings
- i. Coastal use capabilities
- j. State Critical Areas

3. Federal

- a. Delineation of Flood Plains (HUD)
- b. Ocean Dump Site Monitoring Program (EPA)
- c. O.C.S. Offshore Baseline and Monitoring Program (B.L.M.)
- d. Environmental Impact Studies

IV. Assimilation of Information and Materials

Procedures:

- A. Establish information base consisting of current information gathered from various Technical Libraries, agencies, research projects and scientists.
- B. Gather working maps and charts consisting of:
 - 1. Oyster bars
 - 2. Clam bars
 - 3. Aquatic sensitive areas
 - 4. Wetland vegetation
 - 5. Flood plain delineation
 - 6. Major facilities siting
 - 7. Water related recreational areas
 - 8. Major population areas in aquatic zones

V. Public Information

Procedures:

- A. Compile and develop a series of lectures, articles and news letters which establish information on importance of estuaries compared and contrasted with other biological systems.
- B. Establish a local community network which provides distribution of materials to interested citizens and groups.
 - 1. Citizen Advisory Committees
 - 2. Waterman's Association
 - 3. Audubon Society

Worcester, Somerset and Wicomico Counties

Kind of Work

The work is performed under the general supervision of the three county Planning Directors, and is subject to review by the counties and the Department of Natural Resources, Energy & Coastal Zone Administration. The Coordinator will perform a technical and liaison role based upon tasks of coastal zone management work programs developed for each county. The work programs identify county and state requirements in establishing a Coastal Zone Management Program for Maryland. The role of the Coordinator also includes the responsibility to carry out public education and participation activities concerning the work program and its potential benefits for the region.

Objectives

The objectives of the work program are to:

*in other words,
lay it on the
county.*

1. Review, define, and illustrate to the local legislative bodies the coastal zone boundaries of the individual counties, and their effect on local, public and private development proposals.

2. Review existing local planning and management mechanisms in each county to assess their consistency with existing state laws affecting the coastal zone of each county and advise each county of findings.

*this is not
implementation.*

3. Advise of the desirability or necessity to add coastal zone management elements to the master plans and ordinances of the counties.

4. Assist counties in understanding the implementation of coastal zone management objectives at the state agency level.

5. Document satisfactory public involvement in the inventory, assessment and management proposal stages of the work program.

*what are
these?*

6. Accomplish such appropriate regional (Tri-County) functions as may be assigned by mutual agreement of the County Planning Directors of the three counties.

*does not
indicate things
are being worked
out jointly, but
rather
are being
laid on.*

7. Advise counties of the effect of the proposed coastal zone management plan on the counties as promulgated by the Coastal Zone Unit, prior to submission to federal government and in time to enable counties to make comments.

8. Advise prospective proposals for public and private developments as to how said developments may conflict with existing state laws effective in the coastal zone and recommend how conflicts may be minimized.

Task Description/Examples of Work

1. Collect, assess and distribute data, prepare reports and assemble other materials, such as maps and charts, for the county planning directors as necessary to assist each county's involvement with the Coastal Zone Unit and other participating regional and state agencies in the various tasks of the work program.
2. Assist the county planning directors in advising pertinent local agencies, elected officials and the public of the substance and potential implications of the work program which may affect them or their constituency. Seek the active involvement of both agencies and the public in the county's progress on work program tasks where applicable.
3. Work with the county planning directors to define an appropriate role and identify resource needs for each county essential in administering an approved Maryland Coastal Zone Management Program in each county.
4. Perform related work as required, e.g., monthly progress reports to planning directors and Coastal Zone Unit.

*Program
Development
Tasks*

Cecil County

1. Background

At this time Cecil County is developing a new zoning ordinance which involves comprehensive rezoning of the County. As part of this effort, we plan to establish appropriate regulatory mechanisms for management of the County's coastal areas. At the same time, we will undertake a study to provide detailed information on land use and land characteristics in the County, with priority being given to the coastal zone and to the developing areas. The land use inventory will provide the basis for preparation of new zoning maps and for other elements of the implementation of the County's comprehensive plan, including recreation, subdivision control, transportation, and capital facilities planning.

This land use/rezoning program will cover an 18 month period, with completion anticipated by June 30, 1978. Funding support will be primarily from local sources, with some assistance provided through comprehensive planning assistance (701). The additional support proposed herein will enable the County to address in greater depth the land use and rezoning work as it effects the coastal zone.

2. Proposed Scope of Work

This proposal is for assistance during the initial period of the program, i.e., through June 30, 1977. Coastal Zone Management support in this period will be utilized to:

- A. Research and development practical regulatory mechanisms to implement,

through zoning and subdivision control, the management of the coastal zone, with particular attention to the "area of focus" as described in the Energy and Coastal Zone Administration letter to the County Commissioners of November 10, 1976.

- B. Identify, measure, and map the use and characteristics of land in the coastal zone "area of focus", and analyze the pattern of land use and natural features as they relate to development of regulations and to the planning for coastal area facilities.

3. Program Administration and Cost Estimate

The work outlined above will be performed by the staff of the Cecil County Office of Planning and Economic Development, which is the responsible county agency. It is proposed to augment the staff by the addition of a planning aide who will assist in this program as well as performing certain routine staff functions, thereby permitting a higher proportion of senior staff time to be assigned to this effort.

The requested level of Coastal Zone Management support for the period through June 30, 1977 is \$5,000, itemized as follows:

<u>Staff</u>	<u>Est. Man/Weeks</u>	<u>Cost</u>
Director	3	\$1,290.00
Assistant Director	6	1,290.00
Zoning Administrator	5	1,020.00
Planning Aide	8	<u>1,400.00</u>
		\$5,000.00

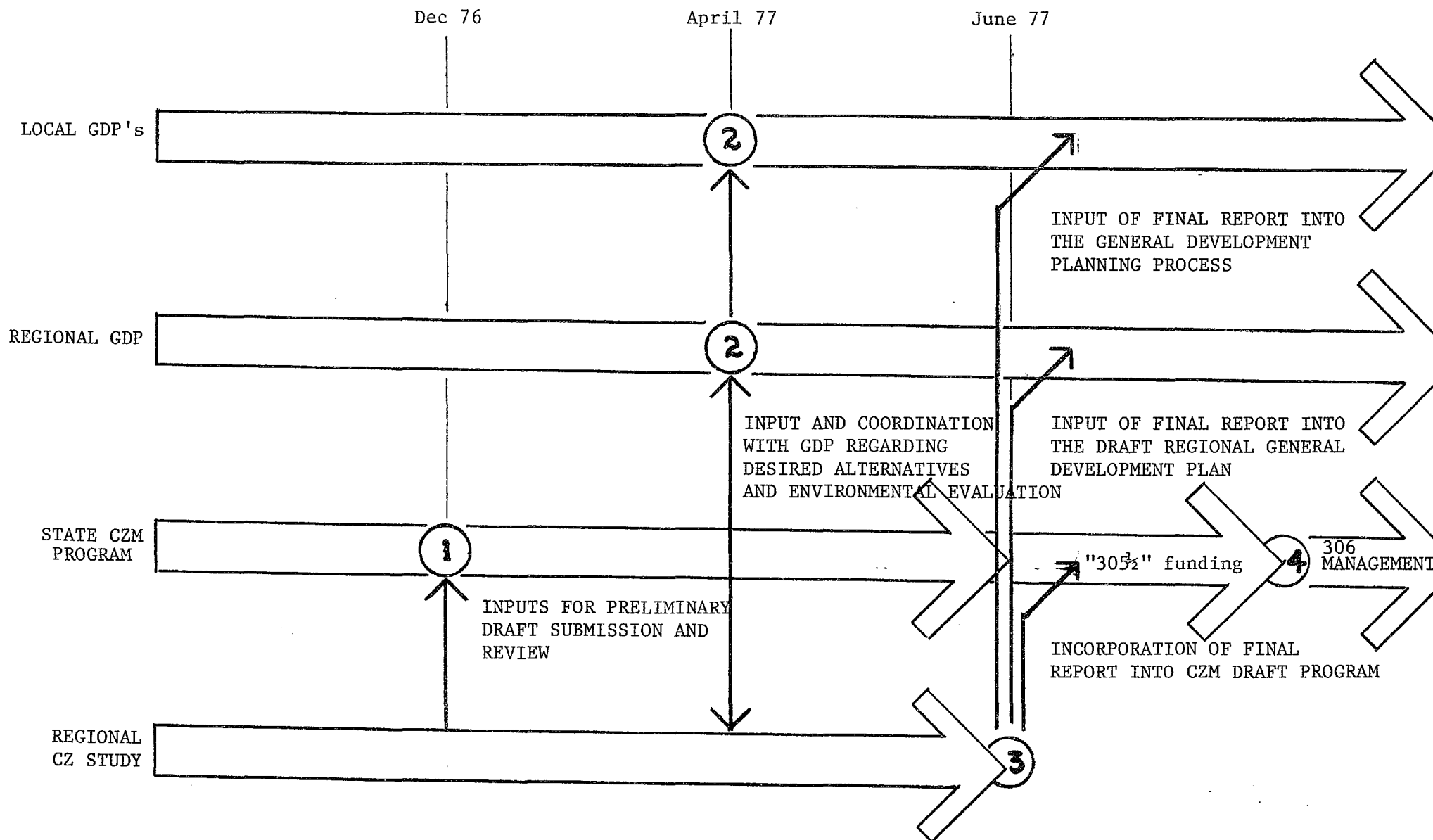
The Baltimore Metropolitan Coastal Area

Maryland's pilot project for coordinating local government involvement in coastal resource management is the Baltimore Metropolitan Coastal Area Study. The ongoing study, begun in August 1975, is carried out under a demonstration grant from the Department of Housing and Urban Development (HUD) and the Office of Coastal Zone Management (OCZM). This study serves as a means of collecting, housing, and analyzing resource data for more informed decision making at the federal, state and local levels. The study also serves as a means of integrating traditional land use planning under HUD 701 and resource management under the Coastal Zone Management Act, into local comprehensive planning activities and the Regional General Development Plan (GDP) (Chart 1). The end product of this study will be an action plan which addresses the needs and problems of urban coastal areas.

Recognizing that the objectives of 701 planning in the Baltimore metropolitan area overlapped the objectives of Maryland's Coastal Zone Management Program and responding to needs recognized as a result of the Baltimore Harbor Plan, the Energy and Coastal Zone Administration entered into a memorandum of understanding with the Regional Planning Council.

To accomplish the objectives set forth in the memorandum, a joint work

MILESTONE EVENTS IN INTERPROGRAM COORDINATION



MAJOR EVENTS:

- 1) Preliminary Draft Coastal Zone Program
- 2) Major exchange of preliminary findings and evaluation with GDP.

MILESTONES:

- 3) Completion of regional study and endorsement of report
- 4) Approval of State CZM Draft Program; initiation of 306 Management Program

program was developed, and several committees were formed to perform, oversee, review and approve the end products of the study. These committees, their role and membership, are listed below.

Task Force

The Task Force is an inter-agency group made up of 1) technical personnel hired with HUD and OCZM monies, and 2) other personnel from various state agencies having a direct and continuing interest in any information assembled. This committee accomplishes the tasks set forth in the work program and reports monthly to the Technical Committee. Membership of the Task Force:

Anne Arundel County
Baltimore County
Baltimore City
Harford County
Regional Planning Council Staff
Energy and Coastal Zone Administration
Maryland Department of Transportation
Maryland Port Administration

Technical Committee

The Technical Committee is also an inter-agency group. Its primary role is to oversee and review implementation of the work program. Members continuously elaborate on and, if necessary, modify the work program as the study proceeds. Members of the committee formally review and comment on products of the Task Force from their own agency perspective. The Committee is responsible for integrating elements of Coastal Zone Management Program development, HUD 701 Planning, and 208 Planning in the Baltimore region, where appropriate.

The Committee also serves as a forum for state, regional and local interests to: 1) resolve concerns regarding use of common baseline information in the Work Program; and 2) communicate the information to government agencies, the Advisory Committee, and the public at large so that decisions regarding coastal resource uses are made in more coherent fashion. The Committee is chaired by one person from the membership on a rotating basis.

Membership of Technical Committee

Anne Arundel County
Harford County
Baltimore County
Baltimore City
Maryland Department of Health and Mental Hygiene
Maryland Department of Transportation
Maryland Port Administration
Maryland Department of State Planning
Maryland Department of Economic and Community Development
Energy and Coastal Zone Administration
Regional Planning Council Staff

Coastal Zone Advisory Committee to the Regional Planning Council

The Coastal Zone Advisory Committee to the Regional Planning Council (RPC) consists of the members listed below. This committee serves a very specialized role for Coastal Zone Management program development in the metropolitan area. It is composed of representatives of local governments, citizens and special interests in the region.

The Advisory Committee's role is to review and comment on principle documents prepared by the Technical Committee, and to provide recommendations to the RPC on coastal policy and related intergovernmental issues. The Advisory Committee will also make recommendations to the RPC regarding the endorsement of the regional coastal study report.

Coastal Zone Advisory Committee to the RPC

<u>Members (19)</u>	<u>Government</u>	<u>Citizen</u>
Baltimore County	Mrs. Marion McCoy Baltimore County Physical Growth Coordinator County Office Bldg. Towson, Maryland 21204	Dr. Marvin Albinak Baltimore Co. Citizens Advisory 717 Hillen Road Baltimore, Maryland 21204
Anne Arundel County	Ms. Florence B. Kurdle Planning & Zoning Officer Anne Arundel Co. Office Of Planning & Zoning P. O. Box 1831 Annapolis, Maryland 21404	Phillip Dales P. O. Box 263 Edgewater, Maryland 21037
Harford County	Mr. Kenneth Green, Dir. Harford County Dept. of Planning County Office Bldg. Bel Air, Maryland 21014	Mr. John Landbeck Hemlock Lane Aberdeen, Maryland 21001
Baltimore City	Mr. Larry Reich, Dir. Baltimore City Dept. of Planning, 222 E. Saratoga Street Baltimore, Maryland 21202	Ms. Doris Trainor Baltimore Gas & Electric Co. Environmental Engineering Sec. Lexington & Liberty Sts. Baltimore, Maryland 21201
Annapolis	Mr. William Blatner Planning Dept. City of Annapolis Annapolis, Maryland 21404	

Coastal Zone Advisory Committee to the RPC (cont.)

Members

Government

Citizens

Havre de Grace

Mr. Frank Hutchins, Mayor
City of Havre de Grace
Havre de Grace, Maryland 21078

Aberdeen

Mr. Ken Stewart
Board of Commissioners
Town Office Bldg.
Aberdeen, Maryland 21001

At Large:

Maryland Port Administration

Dr. Walter Boyer,
Deputy Administrator
Maryland Port Administration
19 S. Charles Street
Baltimore, Maryland 21201

The Chessie System

Mr. E. R. Lichty
General Manager of Operations Planning
The Chessie System
2 N. Charles Street
Baltimore, Maryland 21201

Society of Industrial Realtors

Mr. Lawrence B. Fenneman
Society of Industrial Realtors
673 Bridgeman Terrace
Baltimore, Maryland 21204

Chesapeake Bay Institute

Dr. M. Grant Gross, Director
Chesapeake Bay Institute
The Johns Hopkins University
Baltimore, Maryland 21218

Steamship Trade Association

Mr. Robert J. George
3421 Mayfield Avenue
Baltimore, Maryland 21207

Center for Environmental
and Estuarine Studies

Dr. Peter Wagner, Director
Center for Environmental and
Estuarine Studies
Horn Point
Cambridge, Maryland 21613

Coastal Zone Advisory Committee to the RPC (cont.)
At Large (cont.)

Chesapeake Bay Foundation

Mr. Arthur W. Sherwood
Chesapeake Bay Foundation
Box 1709
Annapolis, Maryland 21404

Maryland Environmental Trust

Mr. James R. Gutman
Maryland Environmental Trust
Suite 1401
501 St. Paul Street
Baltimore, Maryland 21202

Observers: (12)

State:

Department of Natural Resources

Mr. Ken Perkins
Coastal Zone Unit
Maryland Dept. of Natural Resources
Tawes State Office Bldg.
Annapolis, Maryland 21401

Department of State
Planning

Mr. Stoney Fraley
Maryland Dept. of State Planning
301 W. Preston Street
Baltimore, Maryland 21201

Department of Health
and Mental Hygiene

Mr. Charles Albrecht
Maryland Department of Health and
Mental Hygiene
201 W. Preston Street
Baltimore, Maryland 21201

Department of Economic and
Community Development

Mr. Don Clifford
Maryland Department of Economic and
Community Development
2525 Riva Road
Annapolis, Maryland 21401

Maryland Department of
Transportation

Mr. Paul Farragut
Maryland Department of Transportation
P. O. Box 8755
Baltimore-Washington International
Airport
Maryland 21240

Federal:

Environmental Protection
Agency

Mr. Nicholas M. Ruha
Environmental Protection Agency
Region 3 - Curtis Building
Sixth & Walnut Streets
Philadelphia, Pennsylvania 19106

Coastal Zone Advisory Committee to the RPC (cont.)
Federal (cont.):

U. S. Fish and Wildlife Service	Mr. Ralph Pisapia, Acting Super. U. S. Fish & Wildlife Service 1825 B. Virginia Street Annapolis, Maryland 21401
Army Corps of Engineers	Mr. A. E. Robinson, Chief Chesapeake Bay Study Group U. S. Army Corps of Engineers P. O. Box 1715 Baltimore, Maryland 21203
National Marine Fisheries Service	Mr. Marvin Barsu National Marine Fisheries Services Department of Commerce 14 Elm Street Gloucester, Massachusetts 01930
Maritime Administration	Mr. Kenneth Randall Office of Ports & Intermodal Systems Maritime Administration Washington, D. C. 20235
Housing and Urban Development	Mr. Francis X. Healy Area Regional Administration HUD Regional Office Curtis Building Sixth & Walnut Streets Philadelphia, Pennsylvania 19106
Office of Coastal Zone Management	Ms. Geri Bachman, Director Mid-Atlantic Region Office of Coastal Zone Management 3300 Whitehaven, N. W. Washington, D. C. 20235

Technical Work Accomplishments

The joint work program for this effort outlines the scope of the project. The first task is the delineation of the planning boundary. This process includes the identification of issues of concern within the coastal area. Both general issues, such as the economic vitality of the port, and the site-specific issues, such as the revitalization of Fells Point, are included. The mapping of natural and economic features relevant to boundary determination and an examination of existing shoreline-related land and water use activities, led to a preliminary determination of a boundary by jurisdiction.

The second stage of the joint work program is an analysis of existing and future land and water uses. Using data collected and mapped in the boundary delineation process, an assessment of the impact and compatibility of uses to the resources was made. Through this process, potential sites for future facilities are being evaluated. Land and water use needs are being projected, expansion requirements of existing institutions, (i.e. Maryland Port Administration) are being analyzed, and criteria are being developed for urban coastal development, restoration, and reclamation.

The final task of the work program will be the development of a local-state decision-making process and action program which will take into account alternative development policies. The Coastal Zone Management Act requires specific management policies, legislative recommendations, and implementation tools at the conclusion of the program development phase. It is expected that local jurisdictions involved in this planning process will develop these tools during the course of the work program.

Concurrent with work on the study, local units of government are establishing specific programs to integrate products of the Study with on-going activities in their jurisdiction. Local planning efforts include the Harbor Opportunities Planning Program conducted by Baltimore City, and the various stages of general and comprehensive planning activities being conducted in Harford, Baltimore and Anne Arundel counties.

To date, technical products from this project involve reports, memoranda, and maps.

Reports

Inland Boundary Delineation, Draft, December 1975

Issues, Draft, December 1975

Dredge and Fill Permit Process, Second Draft, December 1975

Existing Conditions Review, First Draft, February 1976
Second Draft, March 1976

The Economy and Population: A Summary, Draft, April 1976

Land Capability Analysis, Draft, August 1976

Planning for the Coastal Zone: Issues, Goals, Inventory Analysis,
August, 1976

Memoranda

Memorandum of Understanding/Joint Work Program, October 1975

Quarterly Progress Report, October-December 1975

Communication and Participation, Draft, February 1976

Quarterly Progress Report, January-March, 1976

Technical Work Schedule and Report Process, April 1976

Project Completion Report (to HUD), October 1975 - June 1976

Participants' Roles and Responsibilities, September 1976

Maps

Inland Planning Boundary (1" = 1 mile)

Coastal Zone Inventory (1" = 2000')

- o Urbanized Land Activity
- o Marine Resources and Activities
- o Non-urbanized Physiography
- o Public Facilities and Service Review
- o Soils
- o Elevation, Streams, and Drainage Basins
- o Issues

Coastal Zone Analysis (1" = 2000')

- o Sensitive Areas
- o Resource Protection Areas
- o Activity Centers Linkage

Approval Mechanisms

The end product of the Baltimore Metropolitan Coastal Area Study will be a single, consensus document at the regional level, with local supplements, consistent with the State Coastal Zone Management Program. The content of the document will include major guidelines and recommendations on boundaries, geographic areas of particular concern, and management objectives, as well as supporting graphic and descriptive analyses.

The report will be submitted for endorsement by local planning boards and the Regional Planning Council. It will also be submitted to the Coastal Zone Unit for incorporation into the Maryland Coastal Zone Management Program document.

After submittal and approval by federal government agencies, city and county governments will incorporate the policy and processes contained in the approved Coastal Zone Management Program into local programs.

The Regional Planning Council is requested to develop a GDP under HUD-701 requirements. The management goals and objectives contained in the Baltimore Metropolitan Coastal Area Study will be included in the Regional GDP, with other components being incorporated as appropriate during annual revision.

Appendix L

Public Involvement

General

Maryland's procedures for assuring public involvement in its Coastal Zone Management Program are described in this appendix. The procedures reflect application of the requirements of the federal Office of Coastal Zone Management's threshold paper to this program element (the threshold paper sets the minimum standards necessary to meet the requirements of the federal legislation, the Coastal Zone Management Act).

Requirement 1. Adequate information on the Coastal Zone Management Program is to be made readily available to the public, making known the opportunity and the method for participation in program development. Six steps were taken to fulfill this requirement.

The Coastal Zone Unit initially produced and distributed a fact sheet on the Coastal Zone Management Act, its intent and Maryland's approach under program development to coastal issues and needs. Later, a series of fact sheets covered major program elements and significant studies.

The Coastal Zone Unit produced and made widely available an audio-visual show on the value of the State's coastal zone and problems in balancing conflicting coastal uses. It was later revised for slide show presentation and copies were made to enable mail distribution.

A program newsletter made widely available information on the Program's progress, major studies, and other activities.

A large mailing list was compiled and continually updated. The list included individual citizens, special interest groups, business and industry, libraries, the media, elected officials, and affected government agencies. In addition, a special "active citizens" list was produced to reach persons who expressed more than ordinary interest in coastal matters.

Interest groups, and public service and academic institutions were contacted and encouraged to use coastal-related information in their publications. As a result, several agencies now help distribute information literature on a regular basis to their members.

Highlights of specially prepared news releases were used to encourage and aid media coverage of Maryland's Coastal Zone Management Program.

Requirement 2. Particular efforts should be made to encourage interested and affected groups or individuals to make views and recommendations known to the coastal management agency. Six steps were taken to fulfill this requirement:

During program development, the Coastal Zone Unit staff made every effort to attend public meetings, conferences and workshops held by interest

groups and government agencies in the coastal zone. Staff members of the Coastal Zone Unit familiarized themselves with individuals and groups, their interests and concerns, in order to benefit from having a public sounding board and to establish the Program's credibility.

The Coastal Zone Unit helped develop a questionnaire on public coastal zone concerns and priorities. The bay-wide survey of Maryland and Virginia residents, also gathered information on the agencies operating in the coastal zone. Both Maryland's and Virginia's Coastal Zone Management Program benefited from the information provided by the survey, which was conducted by the Virginia Polytechnic Institute and State University.

In addition, the Program's newsletter served as a mini-questionnaire encouraging readers to respond with their views on program activities and the State's management approach.

Conferences and workshops on program elements and strategies were co-hosted by the Program and public interest groups at important stages of program development.

Contracts were provided to several citizen interest groups on a pilot project basis to allow citizens to study and make recommendations on their coastal areas. Production and distribution costs of these detailed accounts of localized coastal concerns were paid by the Coastal Zone Management Program.

Several citizen advisory bodies were created at the local, regional and state-wide level to meet the need for better communication between the public and affected levels of government during program development. Other advisory bodies may be established as program implementation is approached.

Requirement 3. The public and special interest groups are to be made aware of, and given the opportunity to assist in the preparation of the Program when decisions affecting them are being made. The following steps were taken to fulfill this requirement:

The Coastal Zone Management Program built on existing efforts in coastal resource management by both private and governmental groups (i.e. the Maryland Cooperative Extension Service and the League of Women Voters). The Coastal Zone Unit staff incorporated the concerns and expertise of these organizations in order to give the Program a practical foundation and keep the Program responsive to the people affected by it.

In cases of opposition by individuals to the very concept of a resource management program, conventional methods of public participation were often unsuccessful. Therefore, the Coastal Zone Unit staff made a special effort to work constructively with these individuals through personal letters and meetings to isolate and understand differences of opinion.

Requirement 4. The management program should demonstrate the means by which specific comments raised about the Program are dealt with and brought to the attention of the policy making level of the agency responsible for program development.

Basically four methods are available to bring public concerns to the attention of the policy making levels of the Coastal Zone Unit, primarily the Program Director and Program Administrator..

The primary method used was through the Coastal Zone Unit's public education efforts which brought Coastal Zone Unit staff members into day to day contact with the public. Staff members passed on policy questions to the Program Director for consideration.

Other state agencies and local governments with responsibilities in the coastal zone also served as conduits for public concerns to the policy making level by communication with the Coastal Zone Unit staff and program heads.

The public could also express policy concerns directly to the Program Director and Administrator. Opportunity for the public to discuss policy level comments were provided monthly at five regional citizen advisory meetings and monthly meetings of the Chesapeake Bay and Coastal Zone Advisory Commission and Supplemental Committee over the third program development year. In addition to direct access at Coastal Zone Unit sponsored meetings, the Coastal Zone Unit staff and program heads were often available for meetings of citizens and special interest groups to discuss coastal zone management policy.

Written comments to the Coastal Zone Unit, the Secretary of the Department of Natural Resources, or the federal Office of Coastal Zone Management were also responded to at the policy making level.

Requirement 5. Documentation.

The Coastal Zone Unit has documented a comprehensive list of public and private organizations and their specific interests, which are likely to be affected by, or have a direct interest in, the development or implementation of the management program.

Requirement 6. Public hearings.

Minutes or tape recordings have been made of all public meetings held in the development of the Coastal Zone Management Program. They will remain on file at the Coastal Zone Unit office for inspection. A summary of those meetings, and of future public hearings, will be attached to the Final Environmental Impact Statement on the Program, produced by the federal Office of Coastal Zone Management.

Local Government Organization For
Public Participation in Program Development

Anne Arundel County Coastal Zone Commission

David S. Maney - Chairman

Commander William Berry
Rosemarie Church
Virginia P. Clagett
Philip A. Dales III
Eleanor B. Days

Louis J. Doetsch
Hugo G. Gemignani
Kathryn J. Hatcher
R. Bruce Jones
Dennis N. Sachs

Baltimore City Councilmatic District Planners

The link between the Baltimore City Planning Department and public is accomplished through the work of two councilmatic district planners in the harbor area.

Rachel Edds, 1st Councilmatic Dist.

Ron Mackler, 6th Councilmatic Dist.

Baltimore County Citizens Advisory Committee to the Coastal Zone
Management Program

Dr. Marvin J. Albinak - Chairman

Michael Amann
Paul Breidenbaugh
Judy Faecher

Michael Haire
Fredrick Hall
Milton Rehbein

Dorchester County Citizens Advisory Body on Coastal Zone Management

Wetlanders Right Association, Inc.

Paul Lewis, President

Harford County Resources Management Advisory Committee

John Landbeck - Chairman

Robert Galbreath
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Gary Pensell
Catherine Riley
William Shenk
Larry Stancill
Herbert Theuber

The Baltimore Metropolitan Coastal Area Study

The first practical application of methods for meeting these six requirements came in establishing a public participation program for the Baltimore Metropolitan Coastal Area Study.

I. General Public Participation Guidelines

- A. The Coastal Zone Unit and local governments provided public education programs to generate understanding and interest concerning Coastal Zone Management Program efforts in the metropolitan counties of Maryland and Baltimore City. The Coastal Zone Unit provided the informational materials to carry out the education program.
- B. The Coastal Zone Unit and local governments sought citizen participation throughout program development, to:
 - 1. Increase local governments' understanding of the goals and desires of the public;
 - 2. Increase the likelihood that all significant goals, objectives, and management approaches are considered;
 - 3. Identify procedures to resolve conflicts before they become unmanageable.

II. Public Education Guidelines

- A. The Coastal Zone Unit and local governments provided Maryland's citizenry with the information necessary to understand the benefits of Coastal Zone Management's Program, how one might be affected by the Program, and how one might participate in program development by:
 - 1. Distribution of applicable acts, rules, regulations, guidelines, and plans of participating units of government, the Federal Program, and related state studies;
 - 2. Distribution of newsletters and fact sheets to assist the public in understanding program development, including its processes, issues, and coastal resources;
 - 3. Identification of units of government involved in program development and their roles and responsibilities.
- B. Public Education Activities
 - 1. Development of a mailing list of concerned citizens, groups, governmental units, with an interest in, or likely to be affected by, the program; for use with newsletters, special informational bulletins, and other publications;

2. Development of audio-visual programs for presentation at workshops, public meetings, and special meetings;
3. Conducting public media presentations;
4. Distribution of information packets, public meeting minutes, coastal fact sheets;
5. Holding conferences, seminars, and speaking engagements, addressing the Program, its progress and results.

III. Public Involvement Guidelines

- A. The Coastal Zone Unit and local governments provided the coastal zone citizenry the means and opportunity to review, comment, and assist the State and local jurisdictions in development of a Coastal Zone Management Program. These included:
 1. Advertising public opportunities to assist in the direction and implementation of the Program as decisions are being made;
 2. Structuring these opportunities to take place prior to or during drafting of program elements, with comments brought to the attention of Coastal Zone Unit and local jurisdiction staff;
 3. Documentation of public participation efforts and significant contracts, made widely available to interests associated with coastal zone management.
- B. Specific Public Involvement Activities
 1. Citizen advisory bodies at the local level (Baltimore area only);
 2. Regional Citizen Advisory Bodies (coastal county wide);
 3. Surveys/questionnaires - person-to-person or mail response;
 4. Workshops - on data evaluation, assessment of progress;
 5. Media coverage - panel discussions, between public and Coastal Zone Unit staff;
 6. Personal appearances by Coastal Zone Unit staff representatives before organization meetings and seminars;
 7. Technical Committee meetings to the public;
 8. Membership on the Coastal Zone Advisory Committees to the Regional Planning Council and to the Chesapeake Bay and Coastal Zone Advisory Commission and Supplemental Committee.

Appendix M

Inventory of State Laws

The following description of statutes and interpretations of common law which constitute Maryland's land and water use authority is intended to show that Maryland meets the requirements of Section 305(b) (4) and 305(b) (6) of the Coastal Zone Management Act. Laws are arranged by the principle department responsible for carrying them out. A general description of the purpose and jurisdiction of each department precedes the specific laws which it administers. Emphasis is placed on regulatory programs because Section 305(b) (4) requires an inventory of the State's means of control over land and water uses in the coastal zone. Some cooperative and funding programs are also included, however, because of their present or potential importance in influencing land and water management decisions. This inventory consists only of those laws presently in force, and is in no way a proposal for increased land or water management powers.

The Department of Natural Resources

The Department of Natural Resources (DNR) is the principle state department charged with stewardship of the State's waters, fish and wildlife, forest, mineral, and recreational resources. The Secretary who heads the department is responsible for:

"...the development of coordinated policies for the preservation, conservation, enhancement, wise use and perpetuation of the natural resources of the State. He is responsible for the efficient coordination of all natural resources activities of the State including the settlement of conflicts which arise among units within the Department of Natural Resources."

(Article NR, §1-104 (1974); emphasis added).

The department is specifically assigned responsibility for:

"...planning, development, management, and conservation of the Chesapeake Bay and any other tidal waters, including their shore line and bottom, and any resources associated with these waters."

(Article NR, §8-203(c) (1974)).

The Department of Natural Resources is the agency designated (by letter of Governor Marvin Mandel to Robert Knecht, Director of the federal Office of Coastal Zone Management, March 12, 1973) as the single agency to receive and administer the Coastal Zone Management Administration Grants. The Secretary of Natural Resources is authorized to:

"...apply for, accept, and administer for the State any federal funds or appropriations of money for any purpose which may be hereinafter made out of the federal treasury by any Act of the Congress." (Article NR, §1-104(c) (1974)).

The Department may acquire land, earth, gravel, stone, timber, material, or any improvement by condemnation when necessary to carry out the purposes of any legislative act or advance the aims of forestry, parks, or recreation, and the work of the Department (Article NR, §5-208 (1974)). The Department has a board of review (consisting of seven members appointed by the Governor) which hears

appeals on any decision of the Secretary or unit of the Department subject to administrative review (Article NR, §1-106 (1974)).

The following units within DNR are responsible for land and water use management programs as described below:

1. Water Resources Administration
2. Energy and Coastal Zone Administration
3. Capital Programs Administration
4. Maryland Environmental Service
5. Maryland Environmental Trust
6. Maryland Geological Survey
7. Wildlife Administration
8. Fisheries Administration
9. Forest Service
10. Park Service
11. Boat Act Advisory Committee
12. Interstate Commissions

1. Water Resources Administration

The Water Resources Administration (WRA) is charged with responsibility to:

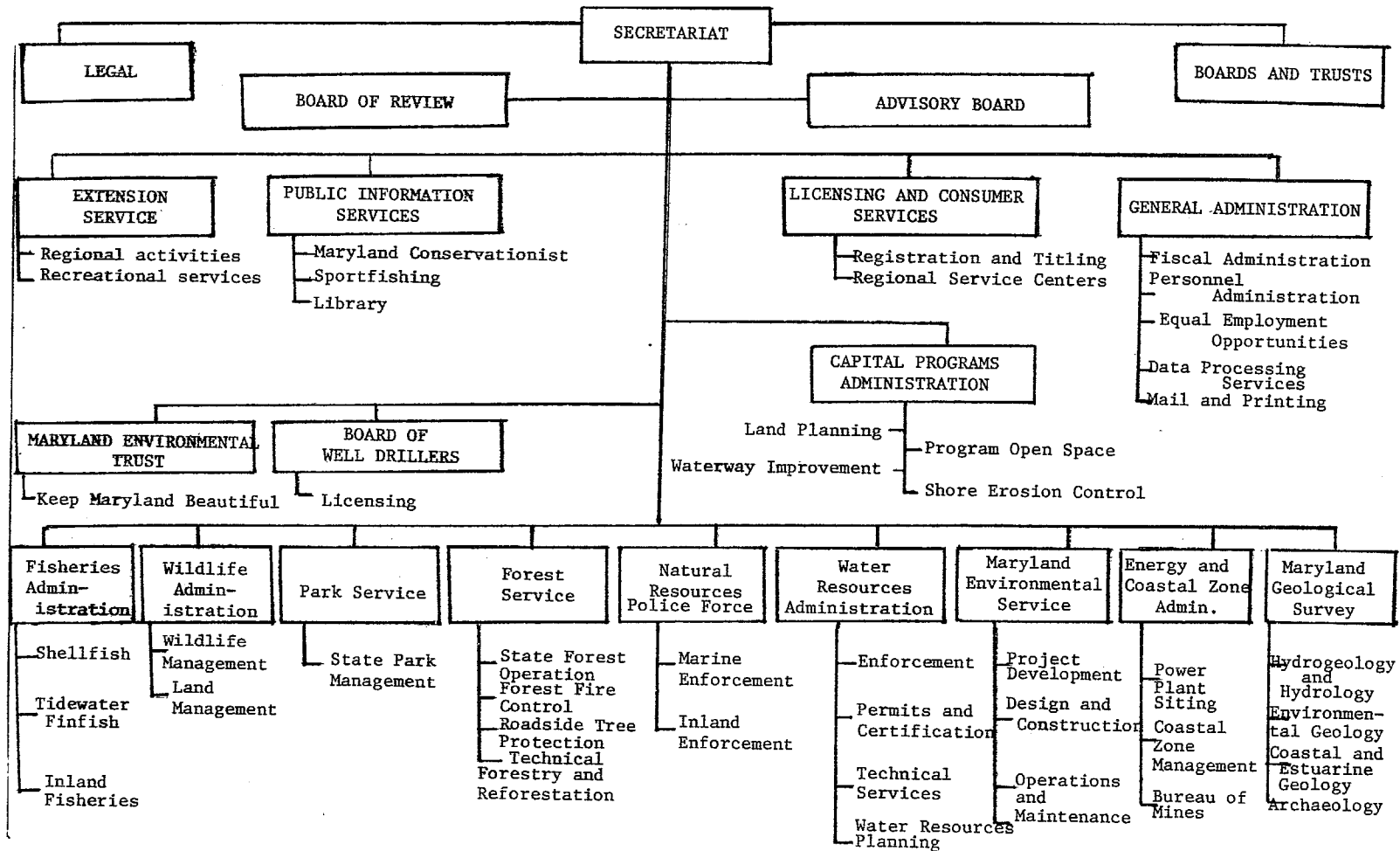
"...exercise to the fullest extent possible the states' responsibility for its water resources by planning and supervising multiple purpose development and conservation of the waters of the state for the state's best interest and benefit. It shall develop a general water resources program which contemplates proper conservation and development of the waters of the state, in a manner compatible with multiple purpose management on a watershed or aquifer basis, or any other geographical unit. The program shall recognize and be consistent with functions of other state units." (Article NR, §8-203(b) (1974)).

The following programs and laws are administered by WRA:

a. General Requirements for Appropriation of Maryland's Water

Maryland's waters are broadly defined as both the surface and underground waters within the State, including a 100-year flood plain. (Article NR, §8-101 (1974), as amended by HB 708, Ch. 185, 1976)). A permit from WRA is required before a person may use or appropriate state waters. (Art. NR Sec. 8-802). The Water Resources Administration must receive satisfactory proof the proposed use will not violate Maryland's water quality standards or jeopardize its natural resources (Article NR, §8-802). In response to the requirements of §8-203 (above) and the requirement of §3-106(d) (see p. M-11) for comprehensive 5-year regional or river basin water supply facility plans, WRA has developed a State wide Water Supply Management Program. The purpose of the program is to evaluate and implement water supply developments to satisfy projected demands in the State, to identify limitations of local water supply plans, and alternatives for correcting such limitations.

Department of Natural Resources



b. Flood Plains and Flood Control

The Water Resources Administration also regulates, by permit, any construction or repairs to dams and reservoirs or any changes in cross section or obstructions to the 100-year flood plain of rivers. Moreover, the filling in or reduction of flood plains or cross sections of non-tidal streams and surface water is considered to be generally against the State's interest (WRA regulation .08.05.03.05 (1972)). The regulation requires all permit applications for such operations to be accompanied by a hydraulic calculation of the effects of such a reduction or filling, as well as the expected benefits of the project.

The authority of WRA to delineate a flood plain area and prescribe water quality standards with implementing regulations was upheld in a 1974 case, when the court ruled the standards and regulations were not an unconstitutional taking (A.H. Smith Sand and Gravel Co. v. Department of Water Resources, 313 A.2d 820, 270 Md. 652 (1974)).

c. Flood Control and Watershed Management Act

The Flood Control and Watershed Management Act gives WRA the power to define flood control areas (Article NR, §8-9A04, H.B. 506, Ch. 659, 1976). Appropriate subdivisions (essentially county and municipality governments) are to adopt regulations within the flood control area (Article NR, §8-9A04(A)). These regulations must require that any use, or its effects, are minimized to the most practical extent possible to protect against danger to life, water quality, or property from backed up or diverted water, obstructions sweeping downstream, or construction or alteration within the flood hazard area, (Article NR, §8-9A07(B)).

The Water Resources Administration is also to establish state-wide watershed areas for flood control and planning management (Article NR, §8-9A05(a)). A state-wide flood control plan is to be developed by the subdivisions in cooperation with the Department of Natural Resources, the Department of State Planning, the Department of Agriculture, and other appropriate agencies (Art. NR, §8-9A05(D)). The final plan approval is the province of the subdivision (Article NR, §8-9A05(E) (b)). The Water Resources Administration is to review the plan and recommend changes to the General Assembly every two years (§8-9A06(C) (D)). The Water Resources Administration may also request appropriate legal action by the Attorney General if the subdivisions do not enforce the provisions of the Act (Article NR, §8-9A07(B)).

d. National Pollutant Discharge Elimination System Permits

It is illegal for any person to discharge any pollutant into Maryland's waters without a permit from WRA (Article NR, §8-1413a (1974)). A permit is also required from WRA before any person can construct, install, modify, or operate any industrial, commercial, or recreational facility or disposal system, state-owned treatment facility, or any other establishment, capable of discharging pollutants into the waters of the State (Article NR, §8-1413(b)). A pollutant is defined as any wastes or wastewaters discharged from any publicly

owned treatment works or industrial source and all other substances which will pollute any waters of the State (Article NR, §8-1401(h)). Moreover, if WRA determines that restrictions on access to treatment facilities are necessary to prevent water pollution, such restrictions may be included as a condition to the discharge permit (60 Md. Att'y. Gen. Op. 108 (1975)). Maryland's Water Pollution Program was passed pursuant to the Federal Water Pollution Control Act Amendments of 1972 (33 USCA 1251 et seq.). A Maryland water quality permit also qualifies as a federal NPDES permit (33 USCA, §§ 1313, 1314, 1342, see also WRA Regulation 08.05.04.08 (1974)).

e. Oil Pollution Control

The Water Resources Administration has general authority to formulate pollution control regulations concerning oil storage, transfer, separation, removal, treatment and disposal (Article NR. §8-14-5(b) (6), (d) (1974)). These regulations have taken the form of an "Oil Handler's Permit" requirement (Regulation .08.05 .04.07 (1973)). The owner or authorized operator of such an oil facility must demonstrate to WRA that he is both adequately equipped to prevent oil pollution and able to control oil spills (id. at 1(B)). It is specifically prohibited for any person to discharge oil in any manner into the waters of the State from any vessel or boat of any kind (Article NR, §8-1410). Licenses are required of all oil terminal facilities. An oil spill contingency plan and payment of a fee are requirements for obtaining the license.

Permit and license fees go into an Oil Spill Disaster Contingency, Containment, and Cleanup Fund used to support the State's oil spill cleanup efforts and to purchase necessary cleanup equipment.

It should be noted that a coastal oil facility as defined by the Coastal Facilities Review Act (which included various types of pipelines, intermediate production terminals or refineries, crude oil storage facilities, operations bases, and fabrication yards) does not have to receive a separate permit from WRA. However, the requirements for the Oil Handling Permit are incorporated into the coastal facility review and must be fulfilled before that permit is issued by the Energy and Coastal Zone Administration (Article NR, §6-505).

f. Hazardous Substances Disposal Act

The Hazardous Substances Disposal Act was passed by the Maryland General Assembly in 1976 (Article NR. §8-1413.2, Laws of Maryland, Chapter 618, 1976)). The Act gives DNR the responsibility for defining and designating hazardous substances (§8-1413.2(c)). Anyone operating a facility for the disposal of a designated hazardous substance must receive a permit from DNR. If the facility operator must also obtain a permit for refuse disposal from the Department of Health and Mental Hygiene, he need not get two permits; rather the DNR conditions are simply incorporated into the Department of Health and Mental Hygiene permit conditions (§8-1413.2 (I)). Anyone who transfers hazardous substances to a disposal facility must receive a certification, and have his vehicle certified by DNR (§8-1413.2(L)). The Water Resources Administration sets fees for permits based on the potential threat the hazardous substances may

present to the environment, the costs of monitoring the disposal operation, and the costs of developing the programs (§8-1413.2 (J)). Fees for permits, certification, or permit renewal go into a Hazardous Substance Control Fund which is used for emergency removal and mitigation of hazardous substances from the waters of the State, identifying and restoring natural resources damaged by hazardous substances, and for monitoring and control of hazardous substances (§8-1413.2(1)).

The Department of Natural Resources may condemn land or facilities when necessary to ensure proper care and monitoring or to protect public health or natural resources (§8-1413.2(N)). An Advisory Council is established to advise the department in establishing regulations and in carrying out the hazardous substance management program (§8-1413.2(D)). The council members represent the Department of Agriculture, the pesticides coordinator of the Cooperative Extension Service, the Department of Licensing and Regulation, the Department of Health and Mental Hygiene, the hazardous substances manufacture and disposal industries, and the public at large.

g. Sedimentation Control

The Water Resources Administration reviews and approves criteria and procedures the counties and local soil conservation districts use to implement soil and shore erosion and storm water runoff control programs. The Water Resources Administration must also review and approve local ordinances passed to implement the criteria under regulation .08.05.03.01(B) (1972). Such review and approval of ordinances and their operation takes place every three years (*id.* at (B) (3)). A person must receive a permit from the appropriate county based on approval of his sediment control plans by the soil conservation authority before he may begin any land clearing, construction, or development (Article NR, §8-1102, 1104 (1974)). The Water Resources Administration is the permitting agency for any state or federal project, or any project on state-owned land (regulation .08.05.02.01(D) (2) (1972)). Any local project sponsored with Program Open Space funds (see Capital Programs, p. M-9) or any project which, in the judgement of the appropriate soil conservation authority, has a significant potential for erosion and sediment damages to lands owned by the State or for lands within the take lines of Program Open Space, requires the approval of both WRA and the soil conservation authority (*id.* at (D) (3)). The Water Resources Administration has the option to review major grading, sediment, and erosion control plans, (Article NR. § 8-1101). For a list of minor exemptions from the general requirements of Article NR, § 8-1101 et seq., as well as substitute agencies for soil conservation districts in specific counties, see regulation .08.05.03.01(1972).

h. Watershed Sediment and Waste Control: Patuxent and Severn River

A special program has been set up to protect the Patuxent and Severn Rivers. The Water Resources Administration has the power to promulgate protective regulations under Article NR, §8-1203. Moreover, it is illegal to dump raw sewage or any other waste into these two rivers (for more specific regulations see 1974 Article NR, § 8-1201 et seq. for the Severn and §8-1301 et seq. for the Patuxent Rivers).

i. Beach Erosion Control District Act

Article NR, §8-1105.1(a) (1975 Suppl) creates a beach erosion control district with the following borders: north, the Maryland-Delaware border; east, the Atlantic Ocean; south, the Maryland-Virginia border; west, approximately the west crest of the dunal line for Assateague Island and the State-Ocean City Building Limit Line for Ocean City. No land clearing, constuction activity, or placement of permanent structures except erosion control structures within the Beach Erosion Control District are allowed. Approval by DNR and the appropriate soil conservation authority is required for shore erosion structures, (Article NR, §8-1105.1(b)). This permit is in addition to any county permit required under the Sediment Control Law (Article NR, §8-1103,1104)). If these restrictions are in any specific case ruled a "taking" of private property, Program Open Space funds may be used to acquire the lands or property rights in question.

j. Wetlands

Maryland's wetlands have been divided into two categories--state owned and privately owned. The former are defined by Article NR, §9-101(m), (1974), as all lands under the navigable waters of the State below the mean high tide, which are affected by the regular rise and fall of the tide. The only exception is that all such wetlands which have been transferred to private ownership by Maryland are considered private wetlands to the extent of the property interest transferred. Private wetlands include all lands not considered state wetlands which border on or lie beneath tidal waters which are subject to regular and periodic tidal action and which support aquatic growth, (Article NR, §9-101(j)). For full text of the Maryland Wetlands Act, see Appendix R.

The Board of Public Works issues dredge or fill licenses within a state wetland, based on the recommendation of WRA (§9-202(c) (1975 supp.)). The licensing decision must take into account ecological, economic, developmental, recreational, and aesthetic values, (Article NR. §9-202(c)).

The Water Resources Administration, with the advice and consent of the Maryland Agricultural Commission, has promulgated regulations for any dredging, filling, or other polluting of private wetlands. (Article NR. §9-302 (1974), see Appendix R, "Order Establishing Wetland Boundaries and Rules and Regulations" (hereinafter, "WRA Wetland Regulation")) which is the basic WRA wetlands regulatory scheme for each county. Moreover, except for certain specified activities, a permit must be issued by WRA before any dredging, filling, or other polluting of private wetlands may be undertaken, (Article NR, §9-306(a) (WRA Wetland Regulation", Sections IV and V). The Water Resources Administration considers the effect of the proposed work on public health and welfare, marine fisheries, shellfisheries, wildlife, economic benefits, the protection of life and property from flood, hurricane and other natural disasters, as well as general wetlands public policy, in issuing a private wetlands permit. The Water Resources Administration may also attach conditions designed to carry out the purpose of the Wetlands Act, ("WRA Wetlands Regulation", Section VI).

A 1971 court case upheld the validity of the 1970 Wetlands Act repealing Article 27, §485 which had allowed a riparian owner reclamation and wharfing privileges (Board of Public Works v. Larmar

Corp., 277 A.2d 427, 262 Md. 24 (1971). A subsequent case held that the Wetlands Act prohibition against dredging merely returned the riparian owner to his or her common law position by revoking a previously granted privilege, and hence is not a taking (Potomac Sand & Gravel Co. v. Governor, 293 A.2d 241, 266 Md. 358, cert. denied 409 U.S. 1040).

k. Surface Mining Act

The Water Resources Administration also regulates surface mining of all minerals other than coal. The 1975 Surface Mining Act was passed in order to minimize the effects of surface mining on the surrounding environment (Article NR, §7-6A02 (a) (1975 Supp.)). The Act establishes a fund for reclamation of surface mine land after mining has ceased (Article NR, §7-6A04 (a)). The Water Resources Administration is also authorized to adopt regulations, although none have been issued to date since the Act did not take effect until January 1, 1977, (Article NR, §7-6A03). After January 1, 1977, a permit must be received from WRA before surface mining activities may be undertaken (Article NR, §7-6A07 (a)). The Water Resources Administration has the authority to modify an existing permit after giving the permit holder notice and opportunity for a hearing if WRA finds that the conditions of the permit "fail substantially to achieve the purpose of the Act" (Article NR, §7-6A17 (a)). The Water Resources Administration also has the power to suspend or revoke a permit for a violation of the Act or permit conditions (Article NR, §7-6A18 (a)).

2. The Energy and Coastal Zone Administration

The Energy and Coastal Zone Administration (E&CZA) was created by an Act of the Maryland General Assembly in 1976 (S.B. 746).

The Administration contains the Power Plant Siting Program, the Bureau of Mines, and the Coastal Zone Unit. The Power Plant Siting Program and Coastal Zone Unit have the responsibility for the siting of major energy facilities with great potential impact on coastal waters. The activities of the Bureau of Mines are largely confined to the western part of the State, overseeing coal mining and reclamation.

a. Power Plant Siting Program

Power plant sites certified as a suitable site by E&CZA are exempted from local zoning regulations (Article NR, §3-306.1 (1975 Supplement)). The Energy and Coastal Zone Administration has the power to acquire property for this purpose by agreement or condemnation (Article NR, §3-305 (b) (1974)).

The Energy and Coastal Zone Administration, in conjunction with the Department of Health and Mental Hygiene, and the Public Service Commission, implements a long range (at least 10 years) power plant site plan. In conjunction with these two agencies, E&CZA studies potential sites for possible environmental effects and formulates a preliminary environmental statement on any proposed site (Article NR, §3-304 (1974)). This statement includes (but is not limited to) the environmental impact at the proposed site; any adverse environmental effects which cannot be avoided if the proposed site is

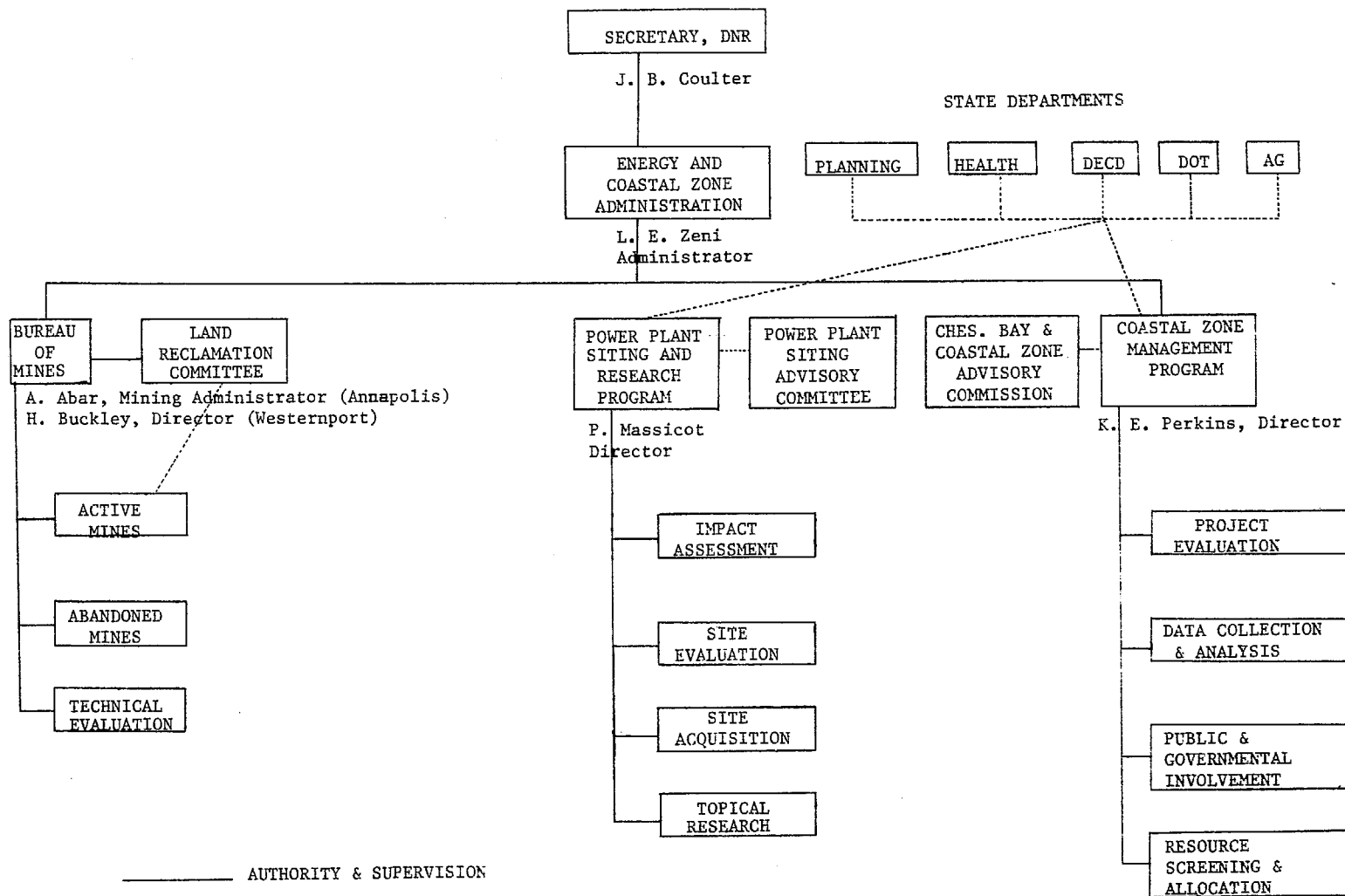
accepted; possible alternatives to the proposed site; and any irreversible and irretrievable commitments of resources which would be involved at the proposed site if approved. In addition, where appropriate, a discussion of problems and objections raised by other state and federal agencies and local entities is included. A plan for monitoring environmental effects of the proposed action and provision for remedial actions if the monitoring reveals unanticipated environmental effects of significant adverse consequences is developed. Sites found by E&CZA to be unsuitable on the basis of the environmental statement, will be deleted from the 10-year power plant site plan unless an electric company offers substantial evidence to the contrary on a proposed site (Article NR, §3-304). The Public Service Commission bases its licensing of power plants on the 10-year plan and the environmental statements (Article 78, Sec. 54B (1976 Supp.)).

The program is financed by a surcharge on electric energy (Article NR, §3-302).

b. Coastal Facilities Review Act

The Energy and Coastal Zone Administration also has control over administering the Coastal Facilities Review Act (CFRA). Various types of oil or gas pipelines, intermediate production terminals or refineries, storage facilities, operations bases, or fabrication yards for offshore activities (as defined in Article NR, §6-501 (e) (1975 Supp.)) must receive a DNR permit before construction may begin. The Secretary of DNR designates an appropriate party to do an environmental, economic, and fiscal statement on the proposed facility to determine whether to issue the permit (Article NR, §6-506 (a)). The impact evaluation does not proceed until after the local government certifies all appropriate local approvals will be granted, or until the local government stays its certification in order to use the results of the completed impact study.

The Department of Natural Resources also receives advisory comments from the Secretaries of State Planning, Health and Mental Hygiene, Agriculture, Economic and Community Development and Transportation in the preparation of the statement (id.). The statement is to include (but is not limited to) an inventory of existing economic and environmental conditions at the proposed site; a project description of what is to be constructed, as well as the method and manner of construction, a complete description of the proposed facility (including anticipated size, effluent load, and production levels); an assessment of the probable economic, fiscal and environmental impact of the project on the natural environment of the area; recommendations for minimizing adverse economic, fiscal, or environmental impacts; an evaluation of the need for the proposed facility and relative merit of alternative sites; in the case of refineries, a description of the manner of transportation of feed stock and the product of crude oil (Article NR, §6-506 (b)). Before a CFRA permit is granted, the requirements of all other DNR permits must be satisfied since the CFRA permit is issued in lieu of these permits (Article NR, §6-505).



3. The Capital Programs Administration

The Capital Programs Administration is responsible for planning and carrying out the Department's land acquisition (See Appendix J for explanation of land acquisition programs) and other capital projects such as constructing recreational boating channels and facilities, park development, and shore erosion control projects. The Capital Programs Administration also administers the State's scenic rivers and wildlands systems.

a. Program Open Space

A transfer tax on all real estate transactions in the State provides the funds for Program Open Space. Half of these funds are used to acquire state parks, natural areas, forests, and wildlife management areas. The remaining funds are used to reimburse local governments up to 100 percent of the costs of open space acquisition and up to 75 percent of the costs of park development. The implementation of any open space project partially or fully funded by State Program Open Space money must meet the needs identified in the Maryland Outdoor Recreation and Open Space Plan prepared by the Department of State Planning in cooperation with the Capital Programs Administration (Article NR, §5-906 (b) (1975 Supp.)). The Capital Programs Administration is to administer the local projects portion of Program Open Space and promulgates regulations governing applications and allowable project costs, (Article NR, §5-906 (c)). Any land acquired or developed under a State Program Open Space grant cannot be converted from its outdoor recreation or open space use to any other use without permission from the Capital Programs Administration and the Department of State Planning, (Article NR, §5-906 (e) (7)).

Both DNR and local governments are specifically authorized to acquire land by condemnation or other means for open space purposes, (Art. NR, Sec 5-1202, 5-1207, 5-1208; Art. 25, Sec. 11A; Art. 25A, Sec. 5; Art. 25, Sec. 224).

b. Wildlands Preservation System

A State Wildlands Preservation System is established by Article, NR, §5-1203 (a) (1974). The definition of a wildlands area that might be included within the preservation system is quite broad. However, the statutory definitions basically refer to an area of land still in its natural condition predominantly untouched by civilization, Article NR, §§5-1201 (c) (1) (2) (3)). Any State wildlands area must be administered so as to preserve its wildland character, (Article NR, §5-1203 (a)). In order for an area to be designated a State wildland, the Secretary of DNR must recommend the designation to the General Assembly (Article NR, §5-1205). The General Assembly must then enact a bill including the area within the State Wildlands Preservation System. The Secretary may acquire privately owned land within the perimeter of a wildland with the consent of the owner (Article NR, §5-1216).

c. Scenic Rivers Act

The Scenic Rivers system at present, includes the Anacosta, Deer Creek (in Harford County), Monocacy, Patuxent, Pocomoke, Potomac (in Montgomery and Frederick Counties), Severn, Wicomico (in Charles

County), and Youghiogheny Rivers,¹ (Article NR, §8-402 (a), (1975 Supp.)). The program provides for the wise management of resources on the land and presentation of their scenic, agricultural, and wild qualities with development limited to activities such as fishing, hunting, hiking, horseback riding, natural and geological interpretation of scenic appreciation, and other programs enabling the general public to appreciate and enjoy the value of the areas as scenic and wild rivers in a setting of natural solitude, (Article NR, §8-402 (b)). An Advisory Scenic and Wild Rivers Review Board also exists for review and recommendation purposes (Article, NR, §8-403). Any new designations of rivers for the program must come from the Maryland General Assembly (§8-403). If any rule or regulation promulgated by DNR to implement the scenic rivers program would constitute a taking of a property right without just compensation, Program Open Space funds may be used to acquire the area, with the approval of the General Assembly (Article NR, §8-410).

d. Waterways Improvement Fund

The Waterways Improvement Fund is maintained by a boat title tax (Article NR, §8-716 (1974)). The Fund may be used to construct marine facilities beneficial to the boating public, improve recreational waterways (clear debris, dredge channels, establish navigation aids, etc.), evaluate water-oriented recreation needs, and develop comprehensive plans for waterway improvements (Article NR, §8-708). The Department of Natural Resources may enter into any agreement with the federal government, any municipality or other political subdivision of the State, or any private agency to share the cost of any development, construction, or improvement of waterways, or facilities determined to have beneficial value to the boating public (Article NR, §8-723 (d)).

e. Shore Erosion Control Program

The Shore Erosion Control Program administers a Shore Erosion Control Construction Loan Fund which provides long-term interest-free loans to individuals, municipalities and counties for construction of shore erosion structures. The fund is maintained by annual appropriations by the General Assembly, and by repayment of loans through a special real estate tax levied by the State on private property benefited by shore erosion control projects (Article NR, §8-1005 (1975 Supp.)). The program establishes priorities for the funding of projects based on the rate of erosion, amount of silt being deposited into the water, public benefits, and other factors (Article NR, §8-1003, (1974)). The program designs and oversees construction and maintenance of the projects it finances (Article, NR, §8-1002). The program also cooperates with other units of federal, state, and local government in developing shore erosion methods (structural and non-structural) and offers technical assistance to individuals, counties, and municipalities on specific shore erosion problems, (id.).

¹ Portions of the Patuxent, the Pocomoke, the Severn, and the Wicomico are tidal and fall geographically within the coastal zone.

4. Maryland Environmental Service

The Maryland Environmental Service (hereinafter referred to as the Service) is authorized to prepare five-year plans for providing water supply, wastewater purification, and solid waste disposal projects for regions designated by the director of the Service, (Article NR, §3-106 (d) (1974)). These plans must then be submitted for review and comment to the appropriate county government, any persons responsible for water supply or waste disposal against whom charges will be levied if the plan is adopted, and the Secretaries of DNR, Department of State Planning, and Department of Health and Mental Hygiene, (Article NR, §3-106 (d) (e)). Each regional plan must be approved by either the appropriate county governing body or by a joint resolution of the General Assembly after a county's disapproval (Article NR, §3-106 (e)). After approval, no municipality or person may dispose of solid wastes within a "service area" designated by the Service, except through the projects of the Service or a municipality or person designated by the plan, or under other reasonable conditions the Service promulgates (id.).

5. Maryland Environmental Trust

The Maryland Environmental Trust has the power to acquire real and personal property, or any interest therein, of aesthetic, scenic, or cultural significance to the health and welfare of the public by lease, gift, purchase, or by any other means, and to conserve, administer, invest or dispose of properties to further the purposes of the Trust (Article NR, §3-203 (1974)). The Trust has acquired rights and conservation easements to approximately 3,700 acres over the last two years.

6. Maryland Geological Survey -- Division of Archeology

The duties of the Division of Archeology are, among others, to protect and encourage the preservation of prehistoric and historic sites located on privately owned lands in the State (Article NR, §2-303 (1974)). The Geological Survey must issue a permit before any excavation, appropriation, injury, or destruction may take place on a state-owned archeological site (Article NR, §2-305). The Survey may promulgate regulations for the preservation of archeological sites and objects (Article NR, §2-307).

7. The Wildlife Administration

The Wildlife Administration is the unit of DNR that carries out the Secretary's responsibilities "...for conservation and management of wildlife and wildlife responsibilities of the state." (Article NR, §10-202). The Wildlife Administration has broad authority to regulate hunting (see Article NR, Title 10, subtitles 3, 4, 5, 6, and 7 generally). The Wildlife Administration is responsible for carrying out the State's migratory bird law and the State's endangered species law, and managing wildlife areas.

a. Migratory Bird Law

Except for unprotected birds and game birds hunted during open season, a person may not hunt, destroy, or possess a wild bird, whether it is killed in Maryland, or elsewhere (Article NR, §10-401 (1974)). Taking of wild and migratory bird nests is also prohibited (Article NR, §10-402).

b. Non-Game and Endangered Species Conservation Act

The State endangered species law recognizes the federal act but the State has additional responsibility to protect non-game and endangered wildlife within its own borders. Hunting, possessing or selling of endangered species (listed in Regulation) is prohibited (Article NR, §10-2A05 (c) (1955 Supp.)). The fine for violation is \$1,000 (Article NR, §10-2A07). The Secretary of DNR is instructed to conduct research on endangered species of wildlife, and to use land acquisition and other authorities to carry out a program for conserving, protecting, restoring, and propagating selected endangered wildlife species (Article NR, §10-2A06).

c. Wildlife Management Areas

The Department of Natural Resources may acquire, by purchase, lease, condemnation, or gift, title or control of any area suitable to protect, propagate, or manage wildlife or for hunting purposes (Article NR, §10-801 (1974)). The Department of Natural Resources may also establish wildlife management areas on state-owned lands, where any disturbance of wildlife is prohibited (Article NR, §10-805). The Department of Natural Resources may also enter into agreements with landowners to establish wildlife management areas on privately owned land (Article NR, §10-806).

8. Fisheries Administration

The Fisheries Administration (MFA) is the unit of DNR created to carry out the Secretary's responsibility for conservation management of fish, fisheries, fish resources, and aquatic life within the State (Article NR, §4-202 (1974)). The regulations of the State with regard to taking commercial and sport fish and shellfish from the tidal waters of the State are spelled out in Title 4, subtitles 7, 8, 9, and 10. Subtitle 11 authorizes a program of oyster and clam culture, including regulation or private culture, seeding and transplanting of oysters on public oyster bars, and closure of oyster bars for health purposes. Other laws include the Endangered Species of Fish Conservation Act (Article NR, §4-2A01 et seq. (1975 Supp.)), which is the parallel to the State Endangered Wildlife Act, and authorization to acquire and control use of state fish refuges (Article NR, §4-401 et seq. (1974)).

9. Forest Service

The Forest Service carries out DNR's responsibility to manage state-owned forests, and encourages sound management of privately owned forest (Article NR, §§5-201, 5-602, 5-603 (1974)).

a. Woodland Conservation Areas

Landowners may contract with DNR to have their land placed within the forest conservation and management program. For the duration of the contract, the tax assessment valuation of the land may not be increased. The landowner must abide by the guidelines of the program, designed to best manage forest areas and protect watersheds (Article NR, §5-301 et seq. (1974)).

b. Forest Conservancy Districts

The State has been divided into forest districts. Each district has a forestry board with members appointed from the area by DNR. The purpose of the districts is to make forestry expertise available to landowners, promote good forestry practices, and assist in watershed management practices. To that end, forestry boards develop comprehensive forest management plans, and may enforce DNR rules and regulations, recommend new rules and regulations, and promulgate "safeguards" for proper forest land use (Article NR, §5-601 et seq. (1974)).

c. Roadside Tree Program

The Department is authorized to plant trees along roadsides, regulate the care of roadside trees, and establish nurseries for the propagation of roadside trees (Article NR, §5-403 (1974)). A permit from the Department is required before any person may cut down or trim a roadside tree (Article NR, §5-406).

10. Park Service

The Park Service manages state-owned parks, scenic preserves, natural areas, parkways, and historic monuments, and is thus responsible for managing such lands in the coastal zone. The Department may acquire such areas by condemnation, purchase or gift (Article NR, §§5-207, 5-208 (1974)).

11. State Boat Act

The State Boat Act, (Article NR, §8-701 et seq. (1974)) gives DNR authority to regulate boating activity on the waters of the State. Regulations promulgated pursuant to the Act concern safe recreational use of Maryland's waters and includes noise limits for pleasure craft (Md. regulation 08.04.00.02, 08.04.00.31 (1972)).

12. Interstate Compacts and Commissions

The Secretary of DNR is instructed by the Natural Resources Article to:

"...take every necessary step to enact appropriate inter-governmental agreements with other states to preserve the optimal state of the Chesapeake Bay through organization of an interstate body to plan, manage, coordinate, and enforce the proper use of the Chesapeake Bay so every user of the bay area can obtain maximum advantage of the bay" (Article NR, §8-204 (1974)).

The Secretary is also authorized to enter into agreement with other states in order to coordinate fisheries management programs (Article NR, §4-205).

The Department represents the State of Maryland on the following interstate commissions: The Susquehanna River Basin Commission, the Potomac River Fisheries Commission, and the Atlantic States Marine Fisheries Commission (Article NR, §1-102 (1974)).

a. Susquehanna River Basin Commission

The Susquehanna River Basin Commission (SRBC) was formed to "conserve, utilize, develop, manage, and control the water resources of the Susquehanna River Basin under comprehensive, multiple purpose planning...". The Commission consists of the designee of the President of the United States and the designees of the Governors of New York, Pennsylvania and Maryland. (Maryland's designee is the Assistant Secretary of Natural Resources Environmental Matters.) The Commission has the authority to develop a comprehensive plan and manage the water resources of the basin on the basis of that plan. The Commission's powers include approval or disapproval of any projects which cross state boundaries, involve the diversion of water, have significant impact on the resources of another state, or are part of the comprehensive plan (SRB Compact, Article 3.10.2).

The jurisdiction of the Commission is so defined that it ends near the upper tidal limit of the Susquehanna River and thus largely falls geographically outside the coastal zone of Maryland. As the Susquehanna is, however, the major source of fresh water for the upper bay, actions of the Commission on upstream uses may have very direct and significant impacts on the Chesapeake Bay. The Compact recognizes this fact:

"The comprehensive plan shall take into consideration the effect of the plan or any part thereof upon the receiving waters of Chesapeake Bay" (SRB Compact, Art. 14.1)

The comprehensive plan does include this consideration. The pre-dominant interest of the State of Maryland and its Coastal Zone Management Program in the management of the Susquehanna River Basin is the impact of the utilization of the basin's water resources on the Chesapeake Bay, and this is the interest represented by Maryland's member of the Commission (who represents one out of four votes).

b. The Potomac River Fisheries Commission

The Commission was formed to further the vital interest of Maryland and Virginia in "...conserving and improving the valuable fishery resources of the tidal water portion of the Potomac River " (Article NR, §4-306 (1974) Potomac River Compact of 1958; Preamble). The Commission consists of six members, three from each state (id., Article I Sec. 2). The Commission has the authority to make regulations concerning the taking of fish and shellfish from the Potomac River, and to license fishermen and shellfish harvesters who use the river (id., Art. III, Sec. 4). Regulations are enforced by law enforcement agencies and offices of both states (id., Art. V, Sec. 1). The laws of Maryland pertaining to fish and shellfish remain in effect except to the extent modified by the Commission's regulations (id., Art. VII, Sec. 2).

c. Atlantic States Marine Fisheries Commission

The purpose of the Atlantic States Marine Fisheries Compact is to:

"...promote the better utilization of the fisheries, marine, shell and anadromous, of the Atlantic seaboard by the development of a joint program for the promotion and protection of the fisheries industry, and by the prevention of the physical waste of fisheries (Article NR, §4-301 (1974); Atlantic States Marine Fisheries Compact, Art.I)

The Department of State Planning

The Department of State Planning (DSP) functions as the Governor's principle planning department and serves as an advisory, consultive, and coordinative agency to all state and local agencies with regard to state planning matters (Article 88C, Section 1 (1975 Supp.)). While DSP powers are largely advisory, it has many responsibilities which give it great influence on a variety of state and local government activities. It uses its advisory influence to produce a balanced and integrated program for the development and effective employment of the State's natural and other resources (id.).

The Department of State Planning is responsible for preparation of the State's Capital Budget. It reviews all capital improvements proposals by all departments for inclusion in the State Capital Budget. It also assists all departments in preparation of short- and long-term capital improvement plans. The Department of State Planning also administers the A-95 Clearinghouse, establishes official population projections and develops the Maryland Automated Geographic Information System (MAGI).

Another function of DSP is to help the E&CZA and the Department of Health and Mental Hygiene publish a biennial Maryland electric power plant environmental impact statement. The Department of State Planning is also to do a special section on the question of growth related factors which might necessitate specific additional electric energy increments by development of a site in the 10-year Power Plant Siting Program, (Article NR, §3-304 (1974)).

The Department of State Planning also gives its recommendations to the party designated by the Secretary of DNR to prepare an economic, fiscal and environmental impact statement for a CFRA permit, (Article NR, §6-506 (1975 Supplement)).

Two programs, detailed below, are of major significance to the Coastal Zone Management Program.

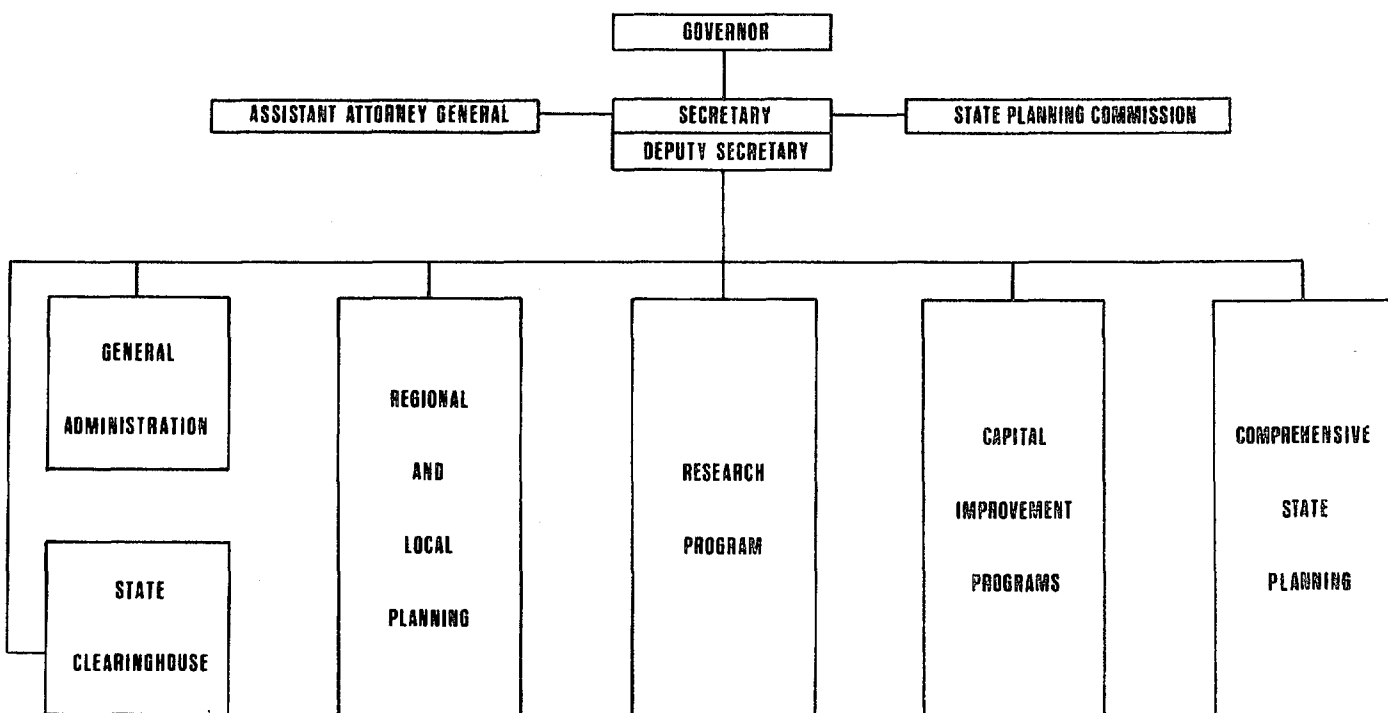
1. State Critical Areas Program

The Department of State Planning has the authority to designate areas of critical state concern (Article 88C, Section 2(b)(3) (1975 Supp.)). The role of local governments is one of recommending to DSP what areas should be included under DSP's critical area designation, suggesting what management measures should be taken to implement the designation, and implementing critical area recommendations once DSP has designated a critical area, (DSP Regulation 16.00.02.12(A) (1975)). This program, and its relationship to the Geographic Area of Particular Concern element of the Coastal Zone Management Program are fully explained in Chapter V.

2. Intervention

The Department of State Planning intervenes in any Maryland administrative, judicial, or other proceeding concerning land use, development, or construction which involves activity of more than just local impact and is of substantial state or regional

ORGANIZATION OF THE DEPARTMENT OF STATE PLANNING



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interest (Article 88C, Section 2(q) (1975 Supp.)). The Department of State Planning will have all the rights of an aggrieved party in an intervention suit and will be able to file an environmental or economic impact statement expressing the views of DSP and any other unit of state government (DSP Regulation 16.00.02.13 (B) (1975)). A local government or other state agency may also request DSP intervention, (*id.*). The Department of State Planning may intervene in state land use decisions as well. It would, for example, have standing to bring an appeal before the Board of Review of a regulatory department on behalf of a local government or another state agency.

The Department of Health and Mental Hygiene

The Department of Health and Mental Hygiene (DHMH), has an extremely wide range of responsibilities. As with DNR, all administrations of DHMH are answerable to the same Secretary. All the responsibilities of DHMH which pertain to coastal zone management are, however, located within one administration of DHMH - the Environmental Health Administration. An organizational chart of this administration is provided on the following page.

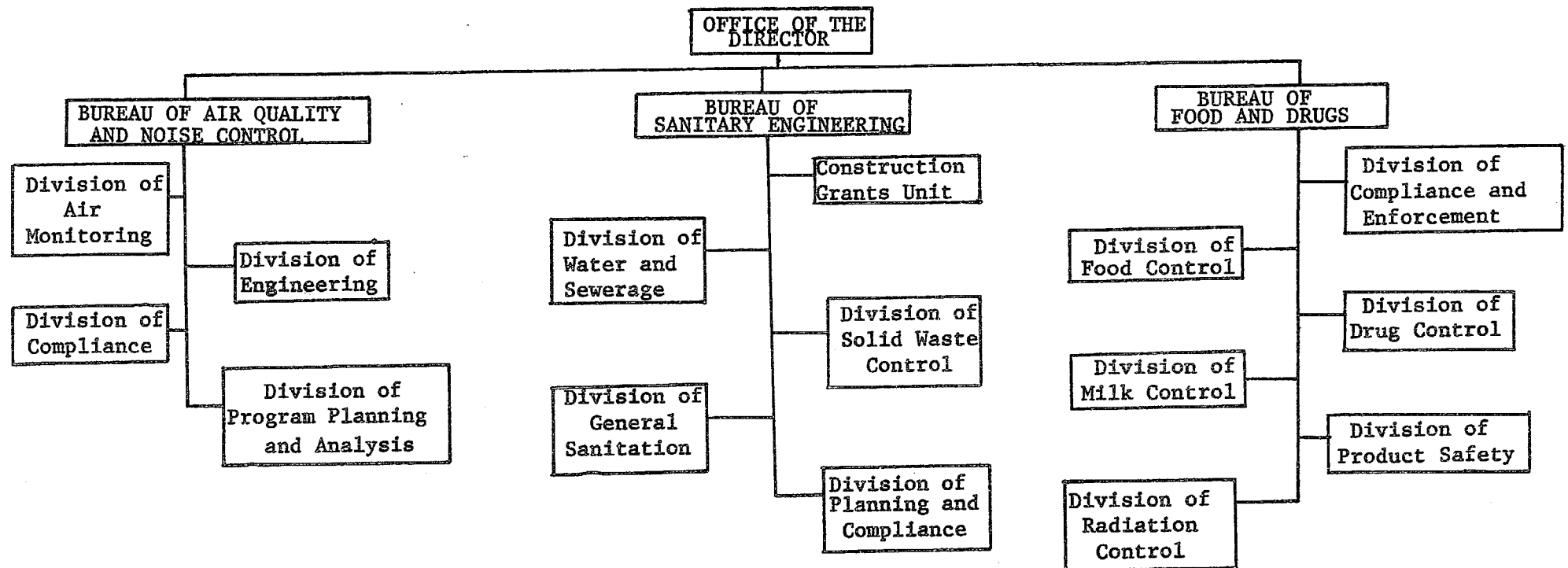
The Environmental Health Administration (EHA) shares responsibility for the State's water quality with WRA. The Environmental Health Administration administers sewage treatment facility construction grants authorized by P.L. 92-500 (Federal Water Pollution Control Act of 1972) and the State's sewage treatment construction funds in conjunction with DNR and DSP. It is responsible for overseeing the county water and sewerage facilities, and permitting the construction both of water and sewerage treatment facilities and individual additions to water and sewerage systems.

The Environmental Health Administration is also responsible for the State's shellfish sanitation program and determines when certain areas should be closed. The Department of Natural Resources then enforces the closures. Additionally, EHA is responsible for air and noise regulations.

1. Water Supply, Sewerage, and Solid Waste Disposal Plans

All counties are required by DHMH to develop a county plan demonstrating how present and anticipated water supply and sewerage needs can best be met in a manner consistent with the use and enhancement of Maryland's water quality (Article 43, Section 387C (b) (1975 Supp.), Regulation 10.03.26.08 (1971)). The regulation requires plan objectives to guide Maryland's water supply-sewerage system development consistently with the State's population growth and economic development. No community water supply or sewage treatment system, or individual water supply or sewage treatment system may be installed or extended in any geographic area unless these facilities are in accord with the county plan, (Article 43, Section 387C (d) (3); DHMH regulation 10.03.26.13 (1971)). The county must submit "timely

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and adequate" annual reports to DHMH on its overall water-sewerage plan. If such "timely and adequate" reports are not filed by the county, then DHMH is authorized to withhold county construction permits until such review is accomplished, (Article 43, Section 387C (d) (5)). The Department of Health and Mental Hygiene may also approve or disapprove county plans or parts thereof (id. at (c) (ix)). The Department of Health and Mental Hygiene must seek an advisory opinion from the DNR and DSP before giving final approval to any county plan (id. at (c) (1) (viii)).

Construction Permits

The Environmental Health Administration grants permits to construct sewage treatment plants (Article 43, Section 394 (a) (1971)). Permit applications are reviewed only after the discharge limitations have been set by WRA. The point of discharge and level of treatment must be consistent with both the county water and sewerage plan and the State River Basin Plan.

Individual Water and Sewerage Systems

The Environmental Health Administration has promulgated regulations which set standards on design and placement of individual (i.e., single home) water and sewerage systems. The regulations contain criteria relating to soil, type, lot size, and distance from waters used for drinking, contact, recreation, or shellfish growing (DHMH Regulations 10.03.27, 10.03.28 (1971)). A court case upheld DHMH's authority to impose reasonable conditions governing individual water supply and sewage disposal systems (Walker, 209 A.2d 555, 238 Md 512 (1965)). However, the court pointed out that the Department is bound by its own regulations and cannot depart from those regulations to make ad hoc decisions on whether to grant permits for such systems.

2. Air Quality

The Department of Health and Mental Hygiene has the jurisdiction to regulate emissions into the air and ambient air quality standards, (Article 43, Section 690 (b) (1975 Supp.)). The Department of Health and Mental Hygiene requires permits for machines discharging emissions into the air, (although an exception is made for transportation vehicles and a special type of boiler used for farm or domestic purposes and electric company generating stations), (Article 43, Section 706 (1975 Supp.)). Installation is defined generally as any article, machine, equipment or other contrivance or construction capable of generating, causing, or reducing emissions, (Regulation 10.03.35 (T) (1972)).

3. Noise Control

The Department of Health and Mental Hygiene has responsibility for establishing ambient noise standards and promulgating regulations for their enforcement, (Article 43, Section 824 (1975 Supp.)).

Regulations have been promulgated for the implementation of noise standards (EHA Regulation 10.03.45 (1975)).

The Department of Economic and Community Development

The Department of Economic and Community Development has accepted a major role in establishing the State Development Plan. The State Development Plan is mandated in Article 88C and is the responsibility of the DSP. The two departments have developed a memorandum of understanding which clarifies their roles in developing the plan.

The Department consists of three major divisions: (1) Business and Industrial Development, (2) Housing Development, and (3) Cultural Development.

The Division of Business and Industrial Development is responsible for three programs that financially encourage industrial development: The Maryland Industrial Land Loan Program; Industrial Buildings for Counties and Municipalities; and the Maryland Industrial Financing Authority (which operates semi-autonomously). "Industrial Development" is defined somewhat differently by each program. The division also is responsible for assisting local governments in applying for, receiving, and administering federal funds available through the Economic Development Administration.

The Cultural Development Division houses, among other programs, the Maryland Historical Trust, which will participate in implementation of the Coastal Zone Management Program objectives pertaining to historic and archeologic site preservation.

1. Maryland Industrial Land Act

The Maryland Industrial Land Act declared a need to acquire potential sites for industrial use and preserve them for future use (Article 41, Section 439 (b) (1975 Supp.)). For this purpose, the Secretary of Economic and Community Development may approve loans to local governments for industrial land acquisition, based on the suitability of the land for industrial use, the industry it is suited to, the likelihood of industry locating at the site, and the compliance of the expected use with zoning, sanitary, and other regulations applicable to the site, (Section 440(a)). Loans may cover up to \$500,000 (Section 440 (b)). The borrowing subdivision cannot sell or lease the land for purposes other than industrial growth; the Secretary may enjoin any sale or lease he finds inconsistent with this law (Section 440 (d) (1)). In addition to land acquisition funds, the Secretary may approve loans for engineering and planning studies of potential industrial sites (Section 440 (f)).

Loans are also available for industrial park planning and development up to \$750,000. Funds can be used for planning and/or engineering costs, land acquisition, servicing by water, sewer, and other utilities, access lighting, rail spurs, costs

unique to a specialized industrial park, site preparation, and rehabilitation of existing buildings (Section 441).

For the purposes of this act, the General Assembly created an Industrial Land Loan of \$6,000,000 (Section 445). Interest and repayment of principle of loans to local governments replenish this fund (Section 446).

2. Industrial Buildings for Counties and Municipalities

The Industrial Buildings for Counties and Municipalities Act sets up a program of local acquisition of industrial land and buildings:

"...to relieve conditions of unemployment in this State, to encourage the increase of industry and a balanced economy in this State, to assist in the retention of existing industry in this State through the control, reduction or abatement of pollution to the environment, to promote economic development to protect natural resources, and in this manner to promote the health, welfare and safety of the residents of each of the counties and municipalities of the State." Article 41, Section 266B (1975 Supp.).

Industrial lands and buildings are defined as any buildings or structures suitable for use as a factory, mill, shop, research and development facility, warehouse, assembly or fabricating plant, or office building related to these uses (Section 266A). This act authorizes counties to borrow money by issuing revenue bonds to acquire industrial buildings (for factory, mill shop, processing plant, fabricating plant, offices, or necessary or useful machinery and equipment, port facility and pollution control facilities) to be leased or sold back to industrial concerns. The bonds and interest thereon are exempt from state and local taxes (Section 266C).

3. Maryland Industrial Financing Authority

The Authority is a semi-autonomous instrumentality of the Department of Economic and Community Development whose members are appointed by the Governor. The State Treasurer or Comptroller and the Secretary of Economic and Community Development are ex officio members (Article 41, Section 266M (1975 Supp.)). The Authority, subject to the authority of the Secretary and other laws of Maryland, ensures the payment of mortgage loans secured by industrial projects up to a limit of \$60,000,000 (Section 266T), for the purpose of encouraging industries to locate in, and discouraging industries from relocating out of the State (Section 266 O).

Counties are empowered - the provisions of their charters notwithstanding - to borrow money and execute mortgages

as security to defray the costs of acquiring an industrial project, without pledging their full faith and credit. If counties act as mortgagers, the interest on the mortgage is exempt from state and local taxes.

d. Maryland Historical Trust

The purpose of the Trust is to preserve and maintain historical, aesthetic, and cultural properties, buildings, and fixtures pertaining to Maryland's early history, (Article 41, Section 181A (1975 Supp.)). The Trust has funding to accomplish this purpose (Article 41, Section 181 (1) (1975 Supp.)). The Trust assists local Historic District Commissions in their historic zoning functions enabled by Article 66B, Section 8.01 to 8.13 (1973). A Historic District designation of the Trust and a local Historic District Commission was held superior to contrary county zoning decisions in the court case Mayor v. Anne Arundel County, 316 A.2d 208, 271 Md. 265 (1974).

The Trust may acquire easements or fee simple title to historic and archaeological sites and properties by gift, purchase, devise, bequest, or any other means (Section 181E (c)). It has been the policy of the Trust, however, not to acquire fee simple, but rather to seek voluntary historic easements. Several forms of tax incentives are available for easement donation, and for maintaining the historic character of historic buildings and districts.

The Department of Transportation

The Maryland Department of Transportation (MDOT) has within its jurisdiction two administrations which carry out major activities in the coastal zone. The State Highway Administration (SHA) is responsible for the State's primary road system, and has extensive long-range highway planning responsibilities. It should be noted that all construction of highways by SHA requires grading and sediment control approval from WRA, as well as other permits involved in bridge or other stream bed alterations, or wetlands filling. Another unit of MDOT is the Maryland Port Administration (MPA) which is involved with promoting and maintaining the Port of Baltimore and development of other small port facilities in the State. Again, port development activities supported by MPA which involve dredging or filling require wetlands licenses and/or permits.

The Maryland Port Administration was created for the purpose of improving existing port facilities and creating new port facilities when the public interest so requires (Article 62B, Section 1 (1975)). The Maryland Port Administration has jurisdiction in, adjoining, or in the vicinity of any of the navigable waters of Maryland (except in Queen Anne's County and only within certain geographic limits in Calvert, Charles, and St. Mary's Counties; id., at Section 2). It has the authority in Baltimore Harbor to dispose of waste matter other than oil collected from commercial vessels, (id., at Section 5A). The Maryland Port Administration also has the power to establish lines beyond which no piers, bulkheads, wharves, pilings, structures, obstructions, or extensions of any character may be erected, (id., at Section 5(q)). It may also

establish regulations to prevent any material, from being deposited in, or placed where it may fall, or be washed into any navigable waters, (id.).

The Maryland Port Administration issues permits for construction within the waters of Baltimore Harbor. For minor projects, this permit is replaced with a simple letter of permission. While MPA has no authority to enforce these permits, they will overlap in jurisdiction with the State wetland license and the U.S. Army Corps of Engineers permits for construction in navigable waters. The Maryland Port Administration generally responds to the Corps of Engineers' public notice, and MPA concerns (which are of a navigational nature) are generally incorporated in the Corps' permit. The major purpose of the MPA permit is to allow MPA to keep an accurate site-specific inventory of construction going on in the Harbor Area.

The Maryland Port Administration works together with the Water Resources Administration's Enforcement Division in the enforcement of oil spill laws and in the Oil Spill Disaster Cleanup, Containment and Contingency Program. The Maryland Port Administration is responsible for the cleanup of spills occurring within its jurisdiction.

The Department of Agriculture

The Secretary of Agriculture has general supervision, direction, and control of the provisions of the Agricultural laws and "...generally of all matters in any way relating to the fostering, protection and development of the agricultural interest of the State", (Article AG, §2-104 (1974)). The important functions of the Department of Agriculture in coastal zone management include the regulation of pesticides, the preservation of productive agricultural land, and management of soil erosion problems.

1. Pesticide Regulation

The Secretary of Agriculture has overall authority for administering the pesticide program under Article AG, Section 5-102(a) (1974). The Secretary of Agriculture has authority to implement pesticide regulations under Article AG, § 5-104(a), and has power to remove from sale any pesticide which has been found to contaminate the environment by federal or state authorities, (Article AG, § 5-108). The Secretary's authority includes licensing of pesticide applicators, and establishment of standards on use, storage, and transfer of pesticides (§5-210). The Department of Agriculture is also to participate in the implementation of the Hazardous Substances Act, and is represented on the Hazardous Substances Disposal Advisory Council.

2. Agricultural Land Preservation Foundation

The purpose of the Agricultural Lands Preservation Foundation is to:

"...preserve agricultural land and woodland in order to:
provide sources of agricultural products within the State

for the citizens of the State; control urban expansion which is consuming the agricultural land and woodland of the State; curb the spread of urban blight and deterioration; and protect agricultural land and woodland as open-space land." (Article AG, Section 2-501 (1975 Supp.)).

The Foundation is governed by six trustees appointed by the Governor. The State Treasurer and the Secretary of Agriculture serve as ex officio members of the Board of Trustees (Section 2-503). The Foundation has the power to restrict the use of agricultural land by acquiring through gift, purchase, devise, bequest or grant, easements in gross or other rights to restrict the use of agricultural lands or woodlands as the Foundation may designate in order to maintain the character of that land as agricultural or woodland. (Section 2-504).

3. Soil Conservation District Act

Each county has a corresponding soil conservation district which is created within the Department of Agriculture (Article, AG, Section 8-301 (1975 Supp.), Section 8-205 (1974)). Each district commission consists of five Soil Conservation District supervisors, appointed by the State Soil Conservation Committee. A soil conservationist is assigned to the district by the U. S. Soil Conservation Service (Sections 8-201 and 8-302).

In addition to the assistance given to farmers in developing conservation plans for their farms, the districts may each adopt and use regulations subject to the Secretary of Agriculture's approval, to help conserve soil, water, other natural resources, and wildlife (Article AG, Section 8-205). At present, however, districts have found it necessary only to adopt advisory guidelines. The districts are anticipated to play a major role in the implementation of Phase II Water Quality Plans (non-point source pollution planning pursuant to Section 208 of the federal Water Pollution Control Act of 1972).

The districts may also approve or disapprove plans for cleaning, grading, transporting, or otherwise distributing soil pursuant to Article NR, §8-1104 (a) (1974), (Article AG, Section 8-306 (a)(17) (1975 Supp.)). The appropriate soil conservation district's approval is a necessary prerequisite to the county or state grading permit that is required, (see DNR - Water Resources Administration, (g) Sedimentation Control on Page M-5 of this chapter).

General Statutes

1. Chesapeake Bay Dumping

Dumping, depositing, or scattering in an unconfined manner any spoil from Baltimore Harbor into or onto any portion of water or bottomland of the Chesapeake Bay or tidewater portion of any of

its tributaries outside of Baltimore Harbor is prohibited, (Article NR, §8-1602 (1975 Supp.)). Article NR, §8-1603 (1975 Supp.) allows the Maryland Attorney General or any county bordering on the Chesapeake Bay to obtain injunctive relief against any person for violating this act.

2. Maryland Environmental Policy Act

All state agencies shall prepare an environmental effects report for each proposed state action significantly affecting the quality of the environment. "Proposed state action" is defined as "requests for legislative appropriations or other legislative actions that will alter the quality of the air, land or water resources" (this subsection does not apply to rehabilitation or maintenance of existing secondary roads); (Article NR, §1-301(c) (1975 Supp.)). This report includes the environmental effects of the proposed action, measures which might be taken to minimize adverse effects and maximize beneficial effects, reasonable alternatives to the proposed plan, and must include commentary by other state, public, or private entities with jurisdiction by law, special expertise, or recognized interest by the legislature, (Article NR, §1-303 (1974)). All state agencies must give environmental values appropriate consideration in their decision making, along with economic and technological considerations (unless specifically prohibited by law; Article NR, §1-303 (1974)).

Local Land Use Regulation

Maryland's chartered counties are given the power to enact local zoning laws for the "protection and promotion of public safety, health, morals, and welfare relating to zoning and planning" under Article 25A, Section 5(x) (1957). The near statutory equivalent for the unchartered counties is the "Zoning Enabling Statute", Article 66B, Section 4.01 (1957). However, the unchartered counties also needed two other statutes to give them authority equal to that which the chartered counties possess under Article 25A, Section 5(x). Article 25, Section 3(s)(t) (1974 Supp.) authorizes the unchartered counties to formulate building and housing codes. Article 66B, Section 5.03 (1970 Supp.) gives unchartered counties the power to control shore erosion, sedimentation, flood damage, open space, and conservation of natural resources, in subdivision regulations.

In addition to these local zoning statutes, there are two local zoning provisions of specific concern to the Coastal Zone Management Program. These are tax deductions for the donation of open space and forest conservation properties, and the counties' right to regulate sewer access. A county may allow a tax credit of up to 75 percent for a piece of property whose present or previous owner conveys to a level of government a permanent easement or other interest which limits the land's use in such a way as to preserve its natural open character in perpetuity, (Article 81, Section 12E (a) (1974) (c) (1975 Supp.)). Neither the county governments, nor any state subdivision (nor the State itself) may increase the assessed value of property donated to the forest conservation and management program for the duration of the donation period (Section 5-3030).

The other key provision is sewerline access. A county has the right to refuse a request for access to a sewerline tie-in even if it has adequate capacity to handle the additional sewage (and a receiving treatment plant with adequate capacity), on the grounds that Article 43, Section 387 C(b) (4) (i) (1975 Supp.) requires counties to provide for "orderly expansion: of sewer service..." in a manner consistent with county and local comprehensive land use plans, 60 Ops. A.G. 108 (1975). The Attorney General went on to point out that "the general authority to plan and stage the development of wastewater treatment systems necessarily includes the power to control the rate at which the capacity of a treatment plant becomes available to the public", (id.).

Counties have all been delegated authority of eminent domain by the State (Article 25, Section 11A, Article 25A, Section 5; see also Eminent Domain, page M- 25).

Common Law

1. Police Power

Maryland's police power is to be used to promote the public health, morals, safety, or welfare of its citizens, (Dasch v. Jackson, 183 A. 534, 170 Md. 251 (1936)). The police power must serve the interests of the general public rather than those citizens of a particular class, the means are reasonably necessary for accomplishment of the purpose, and the means are not unduly oppressive upon individuals, (Lawton v. Steele, 152 U.S. 133 (1894) quoted in Goldblatt v. Town of Hempstead, 369 U.S. 590, 594-595 (1952)). Maryland courts have held police power statutes and regulations to be those designed to prevent a public harm rather than those which aid the government in its enterprise function or promote a positive public benefit, (Smoke Rise, Inc. v. Washington Sanitary Comm'n 400 F supp. 1369 (D. Md. 1975); Stevens v. City of Salisbury 214 A 2d. 775, 240 Md. 556).

Since all property rights are held subject to the fair exercise of a state's police power, no unconstitutional taking without just compensation, occurs when property rights are limited by statutes and regulations formulated under Maryland's police power, (Bureau of Mines v. George's Creek Coal and Land Co., 21 A 2nd 748, 272 Md. 143 at 166 (1974)). The only exception to this principle is the case when a law deprives the property owner of "all reasonable use", which is usually measured in terms of economic value (Georges Creek, supra, 272 Md. at 170).

Three recent cases demonstrate that Maryland has broad police power authority in pollution control operations. The case of Smoke Rise, (supra) held that it is reasonable for a state to exercise its police power to prevent pollution of its water by human wastes and to prevent the epidemic of diseases which flourish under such conditions. The case of AH Smith Sand and Gravel Co. v. Dept. of Water Resources, held that the department's order

prohibiting filling on the company's land within the 50-year flood plain boundary (now the 100-year flood plain) was not a taking, (313 A 2d 820, 270 Md. 652 (1974)). A statute prohibiting dredging or carrying away sand and gravel from marshlands and tidal waters was not a taking, (293 A 2d 241, 266 Md. 358, cert. denied 409 U.S. 1040 (1972)). The court's holding in Potomac Sand was specifically based on the fact that the statute returned riparian property owners to the common law situation where the riparian owners had no right to conduct activities such as dredging, and hence was a revocation of a "privilege" rather than a "right". The court also recognized, however, that the current trend among courts is to consider the preservation of natural resources as a valid exercise of state police power (266 Md. at 373). Therefore, these decisions show that Maryland courts regard environmental laws as being formulated by the State's police power (because they are preventing a public harm, i.e., spoilation of Maryland's natural resources) and hence are valid and do not require compensation as a "taking".

2. Eminent Domain

"Eminent domain is the right of a sovereign state, or of those to whom the power has been lawfully delegated, to condemn private property for public use, and to appropriate the ownership and possession of such property for such use on paying the owner a due compensation to be ascertained according to law" as defined by Corpus Juris Secundum, 1963 ed., Eminent Domain §1. The case of Master Royalties v. Mayor and City Council (200 A. 2d 652, 235 Md. 74 (1964) broadened Maryland's definition of "public use" from a taking by the public to be used by the public (as defined in Riden v. Philadelphia B and W Railroad, 35 A. 2d 99, 182 Md. 336 (1943)), to a use benefiting the public, even though it might not be used by the public. This definition was applied by the Maryland Court of Appeals to justify the condemnation of land to develop a private industrial park in Prince George's County v. Collington Crossroads, Inc., 339 A 2d 278, 275 Md. 171 (1975). The court upheld a Prince George's County condemnation on the grounds that the project would benefit the county as a whole, the initial land acquisition was too expensive for a private developer to undertake, and that the county would retain "significant control: over the development and maintenance of the property after its sale by the use of development covenants (275 Md. at 180). The court also cited with approval the case of Marchant v. Baltimore, 126 A 884, 146 Md. 513 (1924) which upheld Baltimore City's condemnation of land which was to be leased to private parties as part of a comprehensive scheme to develop private port facilities in Baltimore Harbor since the project as a whole would benefit the public (146 Md. at 521).

3. Public Trust

The public trust doctrine was used by the United States Supreme Court in 1892 to overturn an Illinois state legislature grant of fee title for certain submerged lands of Lake Michigan to the

Illinois Central Railroad in the case of Illinois Central Railroad v. Illinois (146 U.S. 387 (1892)). The Court held that the legislature could not relinquish control of its land under navigable water since it must ensure this land is used to benefit the public's right to carry on commerce and fishing activities (146 U.S. at 452). While no comprehensive statement of public trust exists in Maryland, the recent New Jersey case of Borough of Neptune City v. Borough of Avon-By-The-Sea, (294 A. 2d 47, 61 N.J. 296 (1972)), provides a good summary of the purpose of the doctrine. The New Jersey court said that the public interest includes public accessibility to, and use of, tidal water and lands for recreation and health, including bathing, boating, and associated activities (294 A 2d at 54). The New Jersey court did recognize that most other states follow a "navigability in fact" test for determining state public trust jurisdiction instead of New Jersey's "ebb and flow of the tide" test, (299 A 2d at 52, fn 2).

At this point it should be mentioned that Maryland's public trust doctrine is in a confused condition due to three situations: (1) differing judicial definitions of navigability (referred to above); (2) the infusion of public easements into the public trust sphere of activity; and (3) the relevance, if any, of the initial Crown Charter Grant and English common law have in determining a public trust doctrine. All these factors are elements that either make up or affect the concept of public trust.

In Maryland, the public trust doctrine is applied to the waters of the State (Smoke Rise, Inc. v. Washington Suburban Sanitary Comm'n, 400 F supp. 1369 at 1382 D. Md., 1975). The waters of the State are defined in terms of navigability (Adams v. Carey, 190A 815, 172 Md 173 (1937)). However, a judicial dispute exists as to whether navigability is defined by a "factual navigability" test (City of Havre de Grace v. Harlow, 98A 852, 129 Md. 265 (1916) or by an "ebb and flow of the tide" test (Clark v. Todd, 64A 2d 547, 192 Md. 487 (1949)). While the "ebb and flow" test is technically still the correct one, it has come under strong attack over the years as being antiquated. Maryland courts, while recognizing the dispute, have held that it was unnecessary to resolve this issue in order to arrive at a decision in each case (Owen v. Hubbard, a2d 260 Md. 196, 152 (1970); Wagner v. City of Baltimore, 124A 2d 815, 210 Md. 615, 622-626 (1956)). Therefore, it is unclear how much of Maryland's waters are covered by the public trust doctrine.

The debate over navigability and state ownership of waters is further muddled when one looks at English common law as applied in an early Maryland case. In common law, a state's control over a river was divided between control over the river bed (a tidal test of navigability) and control over the water itself (which incorporated both a navigability in fact as well as tidal test of navigability Browne v. Kennedy, 5 Harr. & J 159 (Md., 1821)). However, over the years the courts have come to rely on navigability for Maryland's control over both its water and submerged land (see

Clark, supra; and Smoot Sand and Gravel Corp. v. Columbia Granite and Dredging Corp., 126 A 2d, 146 Md. 384 (1924)). A return to the common law and early Maryland decisions, then would broaden the scope of the public trust doctrine to non-tidal, but navigable in fact, waters.

The principle of public easements further clouds a precise delineation of the scope of public trust. The public has a general right to engage in navigation on the waters of a stream or lake regardless of whether the bed is privately or publicly owned, (Delmarva Power Co. v. Eberhard, A 2d., 247 Md. 273, 276 (1966)). This principle has been traditionally applied by Maryland courts, (Phillips V. State, 22 Md. 380 (1864); Casey's Lessee v. Inloes, 1 bill 430 (1844)). The Delmarva case goes on to say that a similar right of fishing and hunting (which is sometimes restricted to waters publicly owned), the right to use parks, squares, commons, beaches, and the shores, also exists in Maryland, (247 Md. at 276 -277). This principle is roughly co-equal in scope and purpose with the public trust doctrine, and has also been fused together by some courts in a holding on public trust (see State ex rel. Thornton v. Hay, 462 p. 2d 671, 254 Ore. 584 (1969)).

Delmarva's contention, though, has been partially restricted by the limited holding in Department of Natural Resources v. Ocean City, 332 A 2d. 630, 274 Md. 1 (1975). In this case, the Maryland Court of Appeals upheld a developer's right to build a condominium on ground partly between the dune line and mean high water mark of the tide. The court reasoned that since the plats in question were on high ground, covered with grass, and not used by the public until a 1962 storm turned them into a beach type area, the developer's plats were not covered in the early public dedications of land beyond the mean high water mark by the Crown, proprietor, or State of Maryland since these dedications referred to "beaches" and "boardwalks". Ocean City then went on to hold that public use requires express dedication which was not done here. Ocean City next turned to the public trust doctrine and noted that the public's right to access on this part of the beach was restricted by a clause in the initial Charter Grant which reserved the shores of Maryland's sea bays, straits, and navigable waters for various public uses unless they did "notable damage" to the residents and inhabitants of the area. The court held that preventing the developer from using his building permit was such "notable damage" and, hence, the public trust doctrine was inapplicable. The court never resolved whether the public trust doctrine emanated from, and was co-equal with the initial charter grant, but it did consider the "notable damage" provision as controlling in any event. It should be kept in mind that Ocean City is a limited holding based in part on the fact that the area in question had not been a beach or used by the public until 1962; the developer had purchased the land and building permit in 1968 when his development scheme appeared to be valid (since the public trust doctrine has only been revitalized in post 1968 decisions. See Environmental Law and Policy, (1974) pp. 604-643 for a general survey on public trust), and therefore, a veto on his development plans would amount to "notable damage" and the court found that between 1962 and 1966,

the public still did not use the developer's tracts of land as a way of access to the ocean in any significant degree. Since Ocean City, the State has enacted a law which prohibited building in the area in question (see Beach Erosion Control District Act, Page M-6).

After having outlined the ambiguous nature of public trust in Maryland, it should be noted that it is a viable doctrine and has been used as the basis for holding twice in this State. The Smoke Rise case (supra) upheld a Maryland Department of Health and Mental Hygiene sewer service moratoria order on the grounds that the public trust doctrine mandates the State to keep its streams and rivers in their natural, unpolluted condition. Maryland's standing to sue a polluter for a common law nuisance action was upheld on the grounds that the State is a trustee of the river for the public who are beneficiaries of the trust (although the precise phrase "public trust" was not used in the opinion), (State of Maryland, Department of Natural Resources v. Amerada Hess Corp., 350 F Supplement 1060 (D. Md.), motion for rehearing on standing issue denied at 356 F Supplement 975 (D. Md., 1973)).

In conclusion, then, the public trust doctrine is not only a useful tool at present for implementing a Coastal Zone Management Program, but has an even greater potential for application depending on the judicial determination of what is meant by navigability and public use in Maryland.

Appendix N

State Critical Area Examples and Guidelines

This Appendix contains three sample critical area recommendations. An example is given for a critical area for preservation, for conservation, and for utilization. Along with a description of the area, the examples present compatible uses and management techniques which would form the basis of a management program. While each of the examples shown are areas which might be recommended as State Critical Areas by local jurisdictions, these documents are not intended to represent the actual recommendations of the Calvert County or Dorchester County Commissioners. Nor does their use in this document represent endorsement by the Department of State Planning or the Department of Natural Resources.

Following the sample critical areas are the Department of State Planning Guidelines for the Designation of Areas of Critical State Concern.

CRITICAL AREA RECOMMENDATION

Battle Creek Cypress Swamp

Name of Area: Battle Creek Cypress Swamp

Recommendation Submitted by: Calvert County Board of Commissioners
Category of Critical Area: Suitable for Preservation

I. General Categories of Recommendation

- A. Natural Area
 - 1. wetland - wooded swamp
 - 2. prime wildlife habitat, e.g., mink, pileated woodpecker, pinewoods tree frog, osprey, wood ducks
 - 3. endangered animal habitat, e.g., reported utilization by the southern bald eagle
 - 4. rare vegetation, e.g., bald cypress
- B. Area of Special Public Concern
 - 1. floodplain
- C. Area Held in Public Trust
 - 1. Nature Conservancy - nature preserve
 - 2. designated historical district

II. Establishment of Critical State Concern

- A. Establishment of State concern
 - 1. environmentally unique area with rare wildlife and vegetation
 - 2. registered national landmark
- B. Establishment of Criticality
 - 1. environmentally fragile biota
 - 2. development pressures due to proximity of the Patuxent River (see attachment 3)
 - 3. existing degradation where crossed by Rt. 506
 - 4. existing plans for improvements to Rt. 506 with increased access and visibility

III. Delineation of Area

- A. County - Calvert
- B. Election District(s) - One and two
- C. Map Locations
 - 1. U.S. Dept. of the Interior Geologic Survey Maps, Prince Frederick and Broom's Island Quadrangle (see attachment 1)
 - 2. Calvert County Assessors' Maps, Numbers 27 and 30 (see attachment 2)
- D. Owner(s) of Property
 - 1. Principal Swamp Area - The Nature Conservancy, Deeds JLB 11/160 and 111/161
 - 2. Lesser Swamp Area and Buffer Area - multiple private ownership
- E. Directions to Property - South on Md. Rt. 4 to Prince Frederick, continue south 3 miles to Md. Rt. 506, turn right and continue 5 miles to Battle Creek Cypress Swamp

IV. Description of Area

A. Description

The Battle Creek Cypress Swamp is located at the headwaters of the creek for which it is named in an area significant in the early history of Calvert County. Poor drainage and shallow depressions in the steeply dissected terrain make the Battle Creek Cypress Swamp typical of coastal plain swamps. The swamp contains one of the last remaining stands of bald cypress in Maryland, and one of the most northerly in the country. Large cypress trees in the swamp reach 100 feet in height and 4 feet in diameter.

The wood of the bald cypress is valuable for its resistance to decay and cypress from this area was used widely in the County prior to its designation as a sanctuary. The swamp is a natural reserve and is a valuable habitat for many kinds of frogs, turtles, lizards, snakes, fish and birds, some of which are specified under Section I-A.

To date, the swamp has remained in a relatively primitive state with no improved access to the interior of the swamp area. The swamp is divided by Maryland Rt. 506 which marks the transition from brackish to fresh water. A Battle Creek Cypress Swamp Committee has been established by the County Commissioners and charged with making recommendations for very limited use (educational and tourism) consistent with the preservation and protection of the swamp.

B. Sources of Additional Information

1. Calvert County Comprehensive Plan, pp. 1-11, 6-3, 6-8 and map #12
2. Forest Vegetation in Maryland, Department of State Planning, pp. 12, 60, 61
3. Maryland Outdoor Recreation and Open Space Plan, Dept. of St. Plng. p. 29
4. Compendium of Natural Features, Vols. 1 and 2, Dept. of St. Plng.
5. Maryland Upland Natural Areas Study, Western Shore, Energy and Coastal Zone Administration, Department of Natural Resources 1976
6. Calvert County Comprehensive Plan for Parks, Recreation and Open Space, p. 67
7. Battle Creek Cypress Swamp Committee, Chairman Willem H. Roosenburg
8. Calvert County Marine Museum, Dr. Ralph Eshelman, Director of Tourism
9. HUD Flood Hazard Boundary Map, Map 12, issued October 18, 1974
10. Maryland State Wetlands Boundary Map
11. Soil Survey, Calvert County, USDA, Maps 21 and 23, 1971

V. Recommended Compatible Uses and Management Techniques

A. The Battle Creek Cypress Swamp comprises an ecosystem of such a fragile nature that manmade alterations of the system may have serious and irreversible adverse effects. The area should be designated an area of critical State concern suitable for preservation.

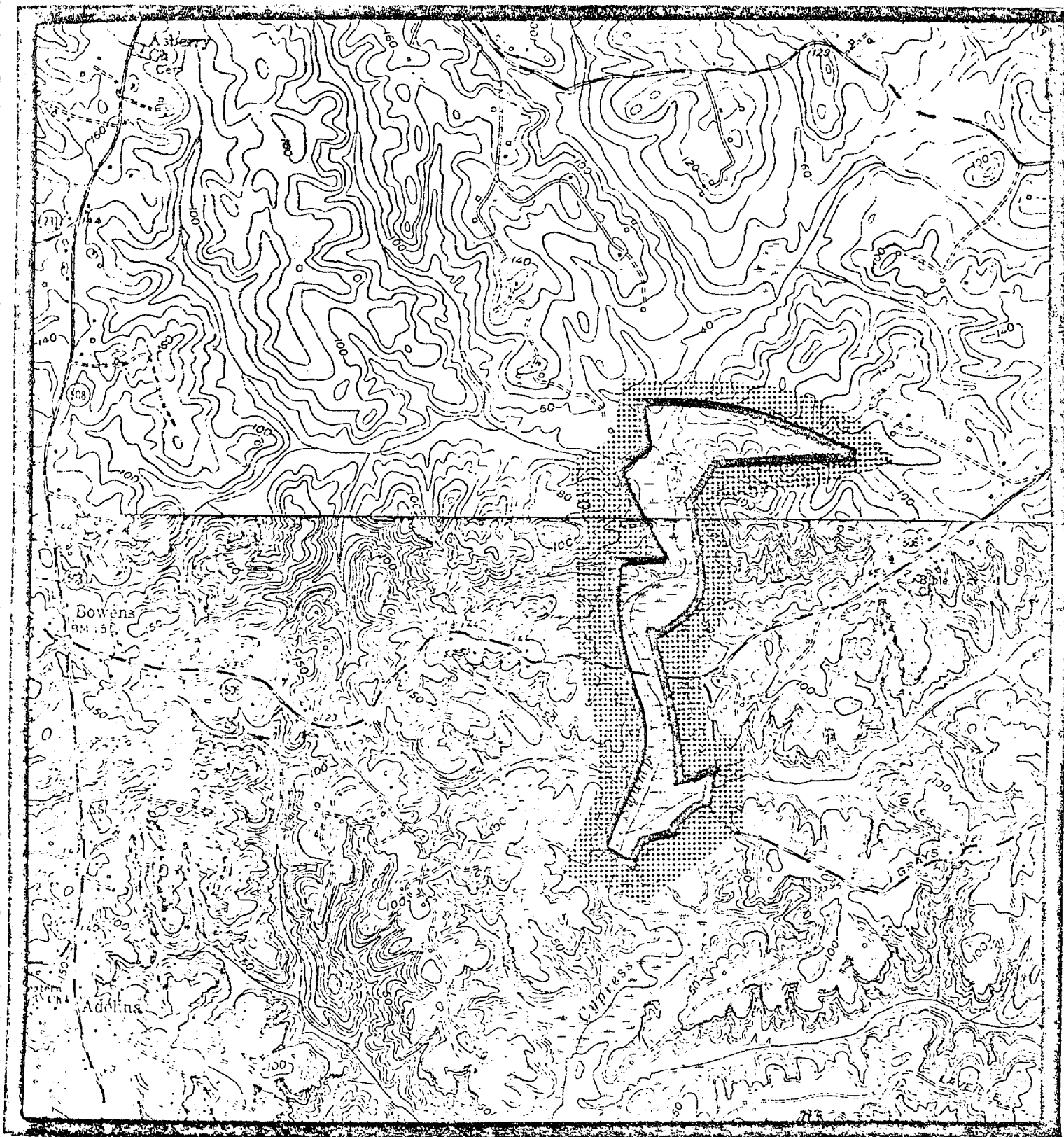
B. Compatible Forms and Levels of Activity

1. Within the Recommended Critical Area
 - controlled low intensity passive recreation
 - controlled educational uses
 - approved research projects
2. Within Buffer Area
 - permitted uses in the Conservation District*
 - special exception uses with the exception of mining, quarrying, and earth removal*
3. In General Area
 - permitted uses in Agricultural District*
 - special exception uses except for: airports/landing strips, heliports, public/private landfills*

*Such uses should be specifically listed on the actual recommendation form.

C. Management Techniques

1. Techniques currently in use
 - Nature Conservancy ownership and protection of the recommended critical areas
 - existing buffer area is zoned Conservation and Floodplain
 - low density zoning in the general area
 - general area is designated low density in the Comprehensive Plan
2. Additional Management Techniques within the Recommended Critical Area
 - limit development to those uses whose environmental compatibility can be demonstrated
 - conduct a thorough inventory of biota
3. Additional Management Techniques within the Proposed Buffer Area
 - rezone the portion of the buffer area now zoned A-1 to Conservation
 - consider purchase of the buffer area or purchase of development rights
4. Additional Management Techniques within the General Area
 - analyze all land use alteration and development proposals for their effects on the swamp area
 - enforce and strengthen existing regulations for the prevention of sedimentation
 - grant only those special exceptions and zoning changes which are demonstrated to have no adverse effects on the swamp property
 - charge the Cypress Swamp Committee with the preparation of annual assessments of land use changes within the general area



SCALE 1:24000

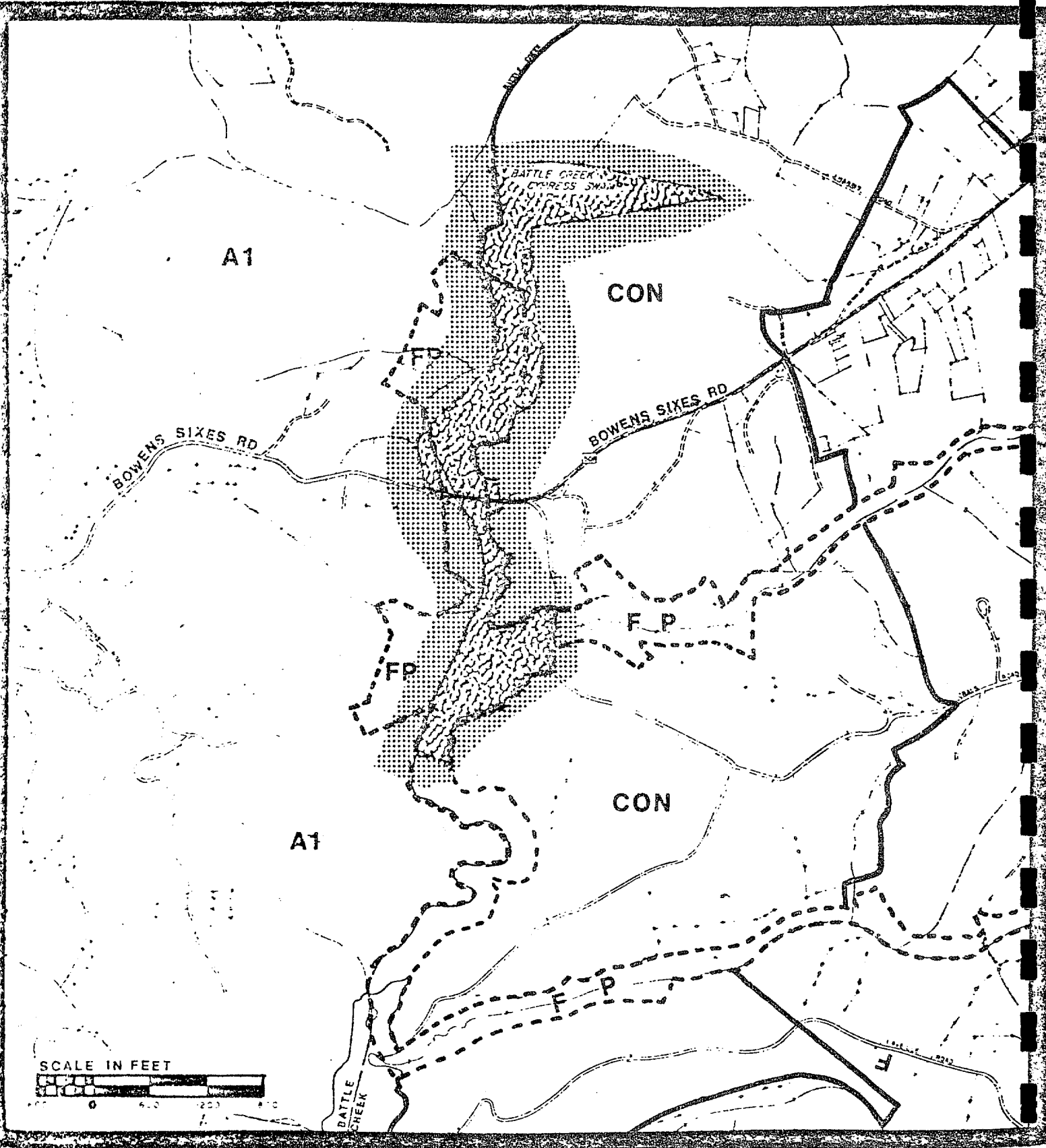
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ATTACHMENT 1

RECOMMENDED CRITICAL AREA

BUFFER AREA

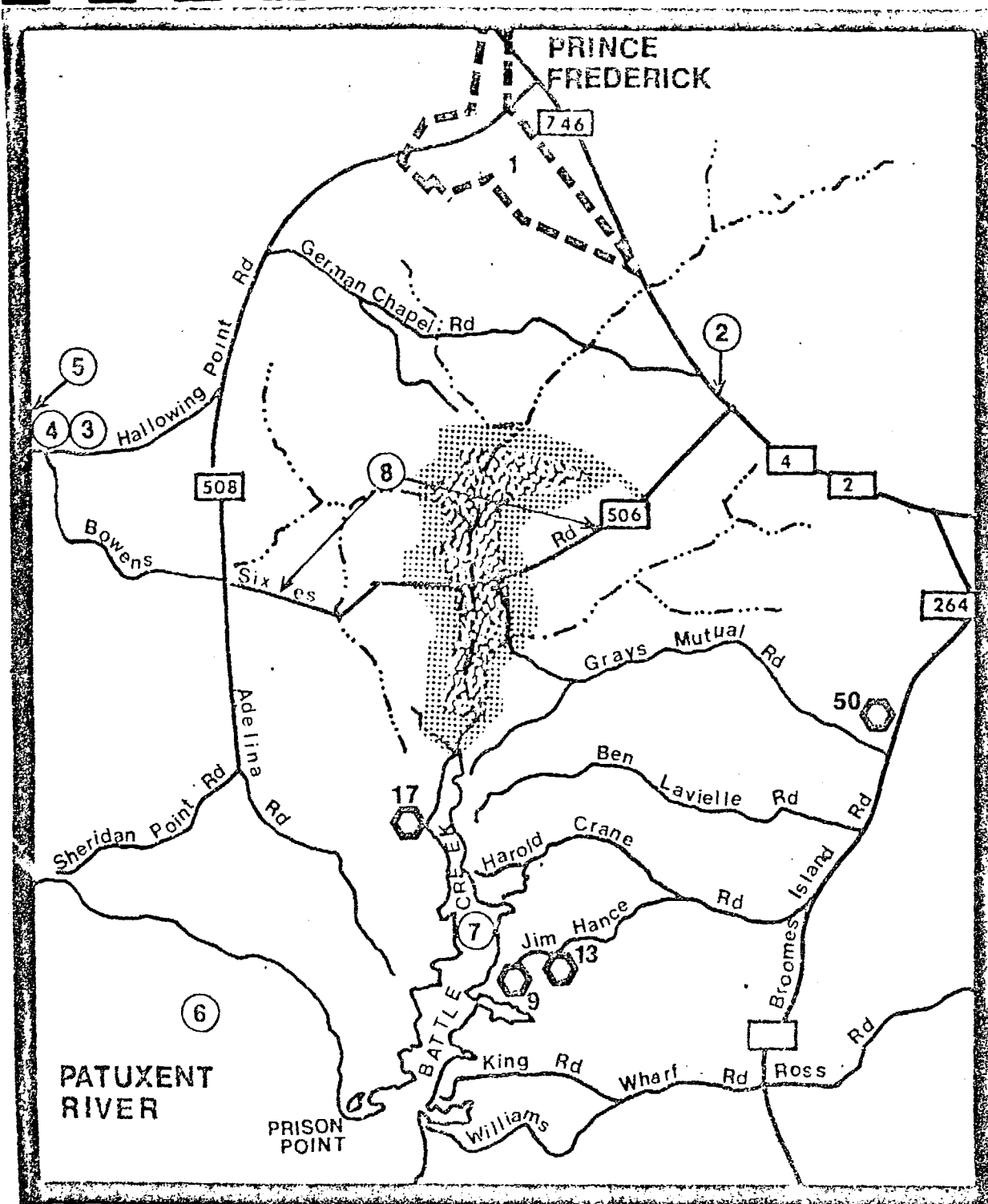
BATTLE CREEK -
CYPRESS SWAMP
TOPOGRAPHY















BATTLE CREEK-CYPRESS SWAMP AREA ZONING

- | | | |
|---------------------------|-----------------------|-----------------------|
| Recommended Critical Area | Buffer Area | A1 - Agriculture Zone |
| Conservation Zone (CON) | Flood Plain Zone (FP) | |

MAJOR FACTORS INFLUENCING GROWTH IN THE BATTLE CREEK- CYPRESS SWAMP AREA



-  1 Growth pressures from Prince Frederick
-  2 Dualization of Rte. 2/4
-  3 County Recreation area (under construction)
-  4 County Industrial Park (under construction)
-  5 Patuxent River Bridge
-  6 Patuxent River
-  7 Battle Creek
-  8 Scheduled improvement, Bowens Sixes Rd
-  Major subdivisions recorded in the basin since 1972 (number of lots)
-  2 State Road Numbers
-  Recommended Critical Area
-  Buffer Area

Sample

CRITICAL AREA RECOMMENDATION
SHORE EROSION

Step 1: General Categories

Areas of special Public Concern - Areas with severe shore erosion are of special public concern because the loss of the shoreline impacts several sections in the State and correcting the problem requires more than what individuals in the counties can achieve on their own. Shore erosion affects major public facilities, especially roads, which may be destroyed if the erosion is unchecked.

Step 2: Establishment of Areas of Critical State Concern

A. Establish State Concern

1. On the Chesapeake Bay side of Dorchester County are three main barrier islands, Barren Island, James Island, and Ragged Island, which are experiencing rapid erosion. These uninhabited islands help protect the main shoreline from severe wind and wave action. If erosion continues and the islands disappear, then the mainland will bear the brunt of the elements, thus increasing erosion problems on the inhabited portions of the County.

In addition to the barrier islands are several barrier points which also act as buffers because they protrude into the water. Two of these which have been specifically mentioned by citizens as being particularly important are Hambrooks Bar and Castle Haven Point.

2. There are several sections of highway in the County which are adjacent to rapidly eroding shores. Erosion threatens to wash away these roads unless some stabilization of the shoreline is

done. These areas become more of a hazard to people using the highway, as the shoreline comes closer to the road.

3. The effects of erosion upon the surrounding environment are of special concern to various sections within the Department of Natural Resources which are responsible for coastal areas.
4. To stabilize shorelines will involve major expenditures of money, which means that individuals alone can't afford such projects.

B. Establish Criticality

Although many areas of the County are experiencing shore erosion, some areas are experiencing such a rapid rate of erosion that they are recommended as critical.

Step 3: Delineation of Specific Areas

Ten areas will be identified as having critical erosion problems.

Three are barrier islands, two are barrier points, and five are sections where a roadway is threatened.

A. Maryland Coordinate System

1. Barrier Islands - These islands are approximately bounded by the following coordinates:
 - a. James Island - 987/255; 991/255; 991/244; 987/244.
 - b. Barren Island - 1010/188; 1015/188; 1015/177; 1018/177; 1018/174; 1010/174.
 - c. Ragged Island 1006/260; 1008/260; 1008/255; 1005/255
2. Barrier Points - These barrier points are approximately bound by the following coordinates:
 - a. Hambrooks Bar - 1059/278; 1063/278; 1063/277; 1059/277
 - b. Castle Haven Point - 1032/291; 1040/291; 1040/289; 1032/288
3. Roadways - These sections of roadway are approximately bounded by

the following coordinates;

- a. Hills Point Road - 1007/272; 1009/272; 1009/273; 1007/273.
- b. Cooks Point Road - 1010/273; 1012/283; 1012/281; 1010/281.
- c. Hooper Neck Road (Cator's Cove) - 996/242; 998/242; 998/240;
996/240.
- d. Hooper Neck Road (Hooper Cove) - 1003/244; 1004/244; 1004/242;
1003/242.
- e. Elliott Island Road (Fishing Bay) - 1089/177; 1097/180; 1097/178;
1089/176

B. Election Districts

1. James Island - 4
2. Barren Island - 6
3. Ragged Island - 8
4. Hambrooks Bar - 7
5. Castle Haven Point - 8
6. Hills Point Road - 8
7. Cooks Point Road - 8
8. Hooper Neck Road (Cator's Cove) - 4
9. Hooper Neck Road (Hooper Cove) - 4
10. Elliott Island Road (Fishing Bay) - 18

C. Assessment Map Numbers

1. James Island - 37, 48
2. Barren Island - 92, 99, 100
3. Ragged Island - 38
4. Hambrooks Bar - 20
5. Castle Haven Point - 10, 11
6. Hills Point Road - 27

7. Cooks Point Road - 17
8. Hooper Neck Road (Cator's Cove) - 48
9. Hooper Neck Road (Hooper Cove) - 49
10. Elliott Island Road (Fishing Bay) - 104

D. Other Maps

See attached maps for Hills Point Road, Cooks Point Road, Hooper Neck Road (Cator's Cove), Hooper Neck Road (Hooper Cove), and Elliott Island Road (Fishing Bay)

E. Ownership

1. James Island - Multiple private ownership
2. Barren Island - Multiple private ownership
3. Ragged Island - Private owner
4. Hambooks Bar - (Main portion) - Private owner
5. Castle Haven Point - Private owner
6. Hills Point Road - County road adjacent to private properties held by multiple owners.
7. Cooks Point Road - County road adjacent to private properties held by multiple owners.
8. Hoopers Neck Road (Cator's Cove) - County road adjacent to private properties held by multiple owners.
9. Hoopers Neck Road (Hooper Cove) - County road adjacent to private properties held by multiple owners.
10. Elliott Island Road (Fishing Bay) - County road adjacent to private properties held by multiple owners.

Step 4: Significant Features

A. Description

1. Barrier Islands

- a. James Island - James Island is identified on the Historical Shoreline and Erosion Rate maps prepared by the Maryland Geological Survey in 1975 as having high erosion. Between 1847 and 1942, the years the survey covered, the shoreline eroded at least eight feet a year. Between 1969 and 1972 the shore eroded approximately 50 feet per year. James Island helps to protect the northern shore of Taylor's Island and the southern shore along the Little Choptank. A stand of timber on the island was recently cut, and it is suspected that this has increased the effects of erosion.
- b. Barren Island - Barren Island, according to the MGS maps, had a high erosion rate of at least eight feet per year between 1848 and 1942. Updated material is not available. Barren Island buffers Hoopers Island from winds and storms out of the northwest.
- c. Ragged Island - Ragged Island, according to the MGS maps, had high erosion rates on the bayside during the study years of 1847 to 1942. Between 1971 and 1974 at one point 20 feet of shoreline were eroded. Ragged Island helps protect other points along the northern shore of the Little Choptank from westerly winds and waves.

2. Barrier Points

- a. Hambrooks Bar - The MGS maps do not show much erosion and even indicate some accretion between 1848 and 1943. However, Hambrooks Bar has almost washed through in two places, which indicates the erosion problem that has apparently developed since 1943. This bar is particularly important for the protection of Great (Gray) Marsh which is owned by the City of Cambridge and proposed for a recreational site. Hambrooks Bar shields Great Marsh from northwest winds and storms. Although some bulkheading is provided on the Choptank River side of the bar, this needs to be strengthened and improved, as it is inadequate to hold the shoreline.

3. Roadways

- a. Hills Point Road - Hills Point Road is the sole means of access to the entire area known as Hills Point Neck. This area is in danger of isolation should the erosion on the southern shore of Brannock Bay continue unabated.

The area that would be isolated includes the town of Thomas and constitutes approximately 1400 acres occupied by over fifty (50) dwellings.

The rates of shoreline recession vary but it is clear that this area is subject to high rates of erosion. West of the study area, the evidence of rapid loss of land is quite apparent, in spite of a relatively high bank. In all, approximately 450 feet of this road is in imminent danger of being destroyed by erosion.

The location of this shoreline with respect to the Chesapeake

Bay, is such that waves created by winds out of the north-west would be essentially unaffected by adjacent shorelines and would fall with nearly full force on the critical area. Considerable effort has been made in the past to protect the shoreline that has encroached to within 7 feet of the edge of road at the most critical location. This area is protected by dumped concrete rip-rap immediately adjacent to the edge of roadway. At this point, the road surface is estimated to be less than one (1) foot above a not infrequent high tide. The bottom in the study area varies from sandy in western limits to silty in the eastern limits. The shoreline is protected to a degree by heavy brush in the western limits of the critical area although this brush growth is being undermined. This area is also protected to some extent by considerable small sized aggregate debris on the beach. In the eastern limits of the study area, the shoreline is stabilized by beach grass root mat. East of the study area, the rate of shoreline recession is significantly higher and is threatening a dwelling.

- b. Cooks Point Road - Cooks Point Road, at the closest encroachment of Covey Creek, is the sole means of access for over seventy (70) properties west of the study area. Continued erosion of the shores of Covey Creek, which is a semi-protected cove off of the Chesapeake Bay, could isolate these residents and, therefore, constitutes a menace to the health and welfare of a significant number of citizens of Dorchester County.

The rate of erosion within the study limits is negligible. Although the bottom is composed of erosion susceptible material ranging from a sandy silt to a relatively firm silty clay, the heavy root mat of beach growth is protecting the shoreline from rapid erosion.

The wave action, characteristic to the shore of the Bay, is apparently modified by the relatively protected nature of the cove and high waves are not a major factor in the shoreline recession. The presence of beach growth at the water line is indicative of a stable shoreline.

The shoreline is quite close to the road edge and high tides frequently inundate the roadway.

Aerial photos taken in 1964, indicate the bulkhead shown in the eastern limits of the study area was just completed and the basin dredged. The spoil from this dredging was placed behind the bulkhead and has resulted in the area between the road and the bulkhead being at a higher elevation than the road.

- c. Hooper Neck Road (Cator's Cove) - Hooper Neck Road at Cator's Cove is slowly being threatened by the encroaching shoreline. Although the historic rate of recession is very low, approximately one (1) foot per year, there are two (2) short lengths where the shoreline is less than 10 feet from the edge of road. There are no shore protection features along this critical area.

The shoreline is very irregular and high tides frequently crest above the top of the beach scarp.

Evidence of the slow rate of erosion is apparent in the gradient of the bottom in the immediate in-shore zone, which is extremely slight, and the presence of a 6" layer of very soft muck. Equally apparent evidence of continuing erosion is present, however, in the vertical nature of the beach scarp. The beach grass root-mat protects the shoreline from the high tide water but the highly erodible soils beneath the root mat are continuing being carried away by normal tide and wave action.

Severance of the road by erosion at the study area would isolate nearly 1200 acres and possibly as many as 15 property owners.

- d. Hooper Neck Road (Hooper Cove) - Hooper Neck Road at Hooper Cove, is in very close proximity to the water's edge and is in danger of severance. Hooper Cove is in a well protected location south of the Little Choptank River and probably experiences very little high wave action yet the historic rate of recession is nearly 3 feet per year. The beach gradient was very gradual and covered with a layer of silt and organic muck approximately 6 inches thick during the field inspection indicating very little recent erosion. The road elevation is less than one (1) foot above frequent high tides and is protected at two (2) critical locations by dumped rip-rap. The erosion process will undoubtedly flank these two (2) short lengths of beach protection and based on past rates of recession, 400 feet length of roadway will require protection within 5 to 10 years.

Only 2 or 3 properties are served by the road south of the possible point of severance.

- e. Elliott Island Road - is the sole means of access for the residents of Elliott Island for its approximately 13 mile length from Henrys Crossroads at Lewis Wharf Road. The road generally traverses the center of the marshy area just north and east of the Nanticoke River until it reaches Fishing Bay. At this point, the road closely follows the southern shore of Fishing Bay for approximately one and one-half (1-1/2) miles. It is along this portion of Elliott Island Road that erosion has threatened continued access to the town of Elliott and the residents of the approximate 75 dwellings.

Rates of erosion within the limits of the study vary from an insignificant dimension in the easternmost and central portion of the study area to rates of shore recession of as much as approximately 2.3 feet per year along the western limits. In 1963 about 4,000 feet of road was abandoned in spite of considerable efforts to provide shore protection in the form of dumped rip-rap.

The MGS Shoreline and Erosion Rate maps indicate that the historic erosion rate from 1849 to 1942 was slight (less than two feet per year). Updated information is not available.

B. Additional Information

- 1. A Report On Shore Erosion Control at Selected County Roads in

1

Dorchester County, Dalton-Dalton-Little, and Newport, 1972.

The priorities identified in this report have changed since 1972 due to improvements made in some of the areas and the effects of storms.

2. Historical Shorelines and Erosion Rates, Maryland Geological Survey, 1975. This report records erosion rates up to 1942, but information beyond that date is very sketchy.

Step 5: Identification of Compatible Uses and Suggested Management Techniques

- A. Type of Critical Area - These areas are recommended as suitable for conservation. The shoreline along both the barrier lands and the roadways must be preserved, which will probably require man-made shore erosion techniques. It is possible that these sites can be used for activities which would help to preserve the shoreline.
- B. Compatible Forms and Levels of Activity
 1. Barrier Islands - The barrier islands are unsuitable for any intensive development, although occasional hunting, conservation, shore erosion control, and other low intensity activity would be desirable. It is possible that with careful controls the islands could be used for spoil disposal sites. Measures to rebuild the islands would be beneficial.
 2. Barrier Points - Unless the shorelines are stabilized, these areas are unsuitable for residential development close to the shoreline. Hunting, farming, and other low intensity uses are suitable in these areas with the present eroding conditions.

3. Roadways - Because the roadways described are in areas with erosion problems, development should be either of low intensity or of the type which is not seriously threatened by erosion. Shore erosion control measures will be needed to protect the roadways.

C. Management Techniques

1. Zoning

- a. Barrier Islands - Both James and Barren Islands are zoned as conservation districts, which allows only low intensity activities including conservation, agriculture, timber growing, hunting, camping areas, limited recreation, etc. Ragged Island is zoned R-1 which is the least intensive residential zone requiring 80,000 square feet per lot. The island is presently used for hunting purposes, and, since it is inaccessible by road, is unlikely to be developed with any intensity.
- b. Barrier Points - Hambrooks Bar is zoned R-3 Residential, which is the most intensive residential zone allowing minimum lot sizes of 10,000 square feet with central water and sewerage. The bar is presently undeveloped, and, because of the instability of the shoreline, is likely to remain so. Castle Haven Point is zoned R-1 Residential, which is the lowest density residential zone in the County.
- c. Roadways - Hills Point and Cooks Point - Both are in R-1 Residential Districts, which have a requirement of

80,000 square feet per lot. This is the lowest density residential zone in the County and intensive uses are not allowed.

Hooper Neck Road at Cator's and Hooper Cove - Both of these are in R-2 Residential Zones. Although the lot size requirement is 40,000 square feet, intensive land uses are't allowed in the R-2 District.

Elliotts Island Road (Fishing Bay) - Most of the land, except for a small portion along the westerly limit, is in the Conservation Zone which allows normal conservation, low intensity uses and limited residential uses. The small portion in the westerly limit is zoned Maritime-Agricultural-Residential. Residential development in MAR must contain at least 40,000 square feet per lot. Generally, commercial uses customary in the area are permitted by special exception, which requires a public hearing to consider the request.

2. Natural limitations

Because of the soil conditions and shore erosion problems, none of these areas are anticipated to be able to support intensive development.

3. Shore Erosion Control

While many areas are threatened by development, the barrier islands and roadways are jeopardized by nature. Since the natural elements can't be made to comply with man-made regulations, man must learn to adapt to nature.

- a. Barrier Islands - Shore Erosion control for the barrier islands will be most expensive. However, if shore erosion control can be combined with another project, such as spoil site disposal, then the benefits will be greater to justify such an expense.

The Department of Natural Resources is evaluating spoil disposal sites. The County should seek their assistance in evaluating the use of barrier islands for spoil disposal areas. Since the islands will need bulkheading or some other stabilization, and since the disposal of spoil on the island would necessitate some form of containment, it is possible that two purposes could be accomplished with one project. Items to be examined would include methods of stabilizing the islands and containing the spoil, types of spoil which could be deposited, the amount of spoil that could be contained on any site, the cost of developing such an area, financing arrangements, and environmental impacts. It is conceivable that the State could own several approved spoil disposal sites and lease disposal rights to various agencies, groups and individuals who need a place to dispose of spoil material.

Another way to help stop erosion is through natural vegetation.

The cutting of timber from the barrier islands should be discouraged. Reforestation and grass planting should be promoted. The County, DNR, and organizations such as

the Chesapeake Bay Foundation and the Nature Conservancy could work together to evaluate and develop plans for using natural vegetation for shore erosion control, not only for the barrier islands, but wherever that type of control is suitable.

- b. Barrier Points - The barrier points will also be expensive to protect. As was suggested for the barrier islands, DNR and various organizations could assist the County in determining what type of shore erosion control is most suited to each site. Perhaps DNR would want to use these areas for experimentation and development of erosion control techniques, if other types of assistance are not available.
- c. Roadways - The Dalton, Dalton, Little and Newport report referenced previously suggested methods of shore erosion control for each of the roadway sites. A summary of the suggested techniques is included below, but detailed information should be obtained from the report.
 - 1. Hills Point Road - The system for shore erosion control in this area is recommended to be the concrete filled tire revetment (stepped) primarily because of the apparent economy based on the long predicted life expectancy. 1972 cost - \$29,000.
 - 2. Cooks Point Road - Since shoreline recession on Cooks Point Road occurs predominantly under conditions of storm tides and wind waves generated from generally southwesterly direction, it is recommended

that a revetment of concrete filled tires (stepped) be installed. 1972 cost \$14,000.

3. Hooper Neck Road - Cator's Cove - It is recommended that a concrete pipe bulkhead be installed at this site, especially since the equipment can be used for both this and the following roadway. 1972 cost \$18,500.
4. Hooper Neck Road - Hooper Cove - Because of the shore characteristics and location of the shoreline, it is recommended that the concrete pipe bulkhead be installed at this location. 1972 cost \$12,500.
5. Elliott Island Road (Fishing Bay) - It is suggested that this location provides an excellent opportunity to install several types of shore protection systems and gauge the performance in interest of research. There are sections within the study limits where, should a specific system fail to perform satisfactorily, the damage resulting from failure will be minor and correctable before serious danger to the road and access to Elliott would occur. Detailed information is available in the Dalton, Dalton, Little and Newport report. 1972 cost \$121,000.

The report prepared by Dalton, Dalton, Little and Newport did not mention methods of financing, however, two federal programs are worth exploring for both the barrier islands and the roadways.

1. Corps of Engineers - Emergency Bank Protection, Federal Catalogue of Domestic Assistance number 12.105. This program provides grants for bank protection of highways,

highway bridges and essential public works endangered by flood-caused erosion.

2. Soil Conservation Service - Small watershed (PL-566) Program, Federal Catalogue of Domestic Assistance number 10.904. This program provides grants and technical assistance for planning and carrying out works of improvement to protect, develop, and utilize the land and water resources in small watersheds.

4. Improved Shoreline and Erosion Rate Maps

There is a whole area of shore erosion problems which has not been touched upon because of a lack of information. The erosion of private property which does not immediately impact a public facility is a serious problem in Dorchester. The cost of correcting shore erosion overwhelms the average property owner. The first step in addressing such a problem, however, is to determine where shore erosion affecting private property is most severe.

The Historical Shorelines and Erosion Rates maps prepared by the Maryland Geological Survey are a good effort, but are incomplete because they do not portray shorelines since 1942. These maps should be updated to reflect shore erosion from 1942 to the present for the whole County. This should be undertaken by the office of Coastal Zone Management as a completion of the maps published thus far. With this information the County would be in a better position to consider this type of erosion for future critical area recommendations.

HILLS POINT ROAD



SCALE: 1" = 500'

Ebb
Flood

B

A

6

RANNOCK

LIMIT OF STUDY

Shoreline
1971

1 2 3 4 5

Dumped
Rip-Rap

POINT ROAD

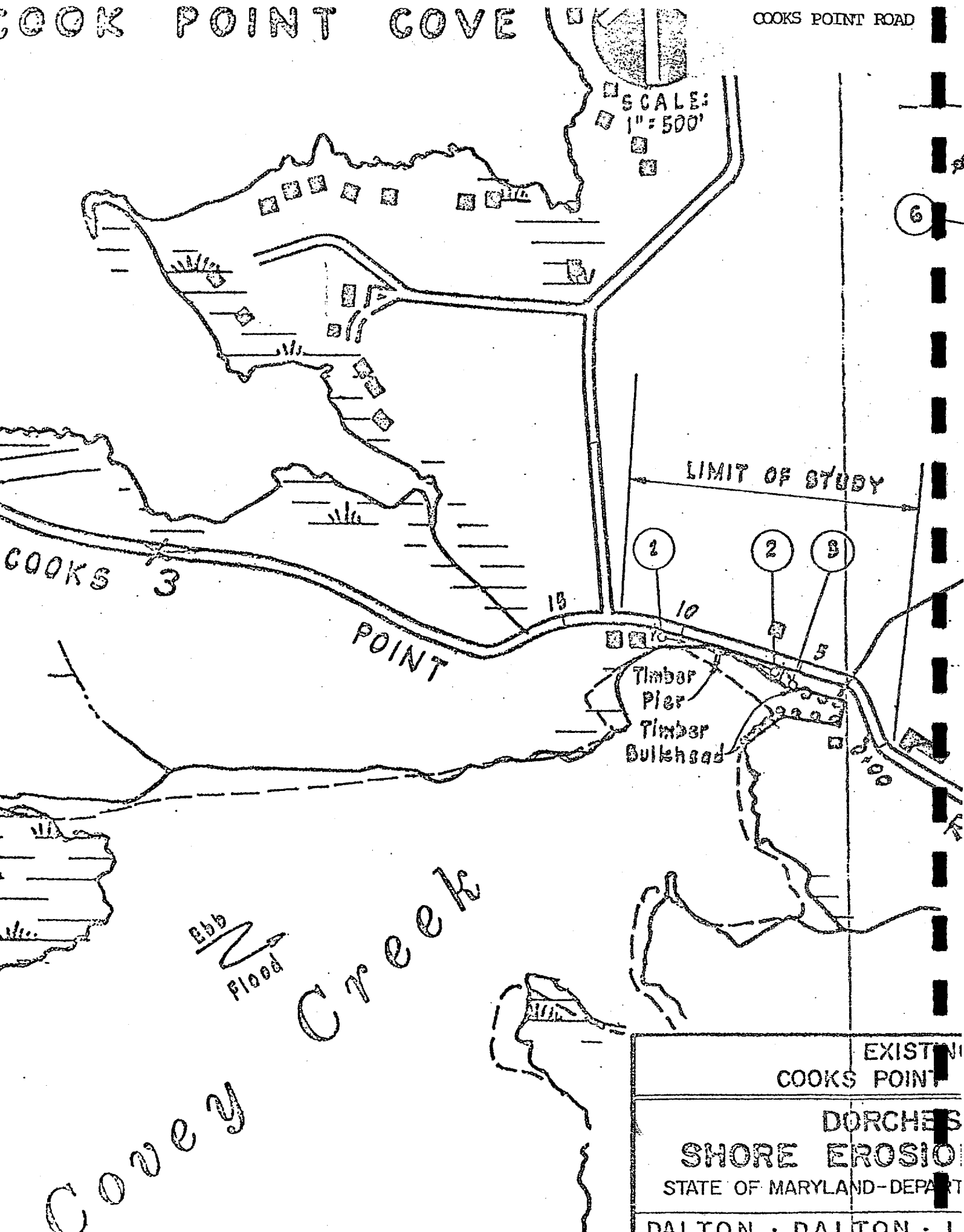
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HILLS

EXISTING CON	
HILLS POINT ROAD - 1	
DORCHESTER	
SHORE EROSION C.	
STATE OF MARYLAND - DEPARTMENT C	

COOK POINT COVE

COOKS POINT ROAD



EXISTING
COOKS POINT
DORCHES
SHORE EROSION
STATE OF MARYLAND-DEPT
DALTON · DALTON ·

LITTLE CHOPTANK



HOOVER NECK ROAD
(Cator's Cove)

SCALE : 1" = 500'

Ebb

Cator's
Cove

HOOVER

LIMIT OF STUDY

- 1
- 2
- 3
- 4

Approximate
Shore Line

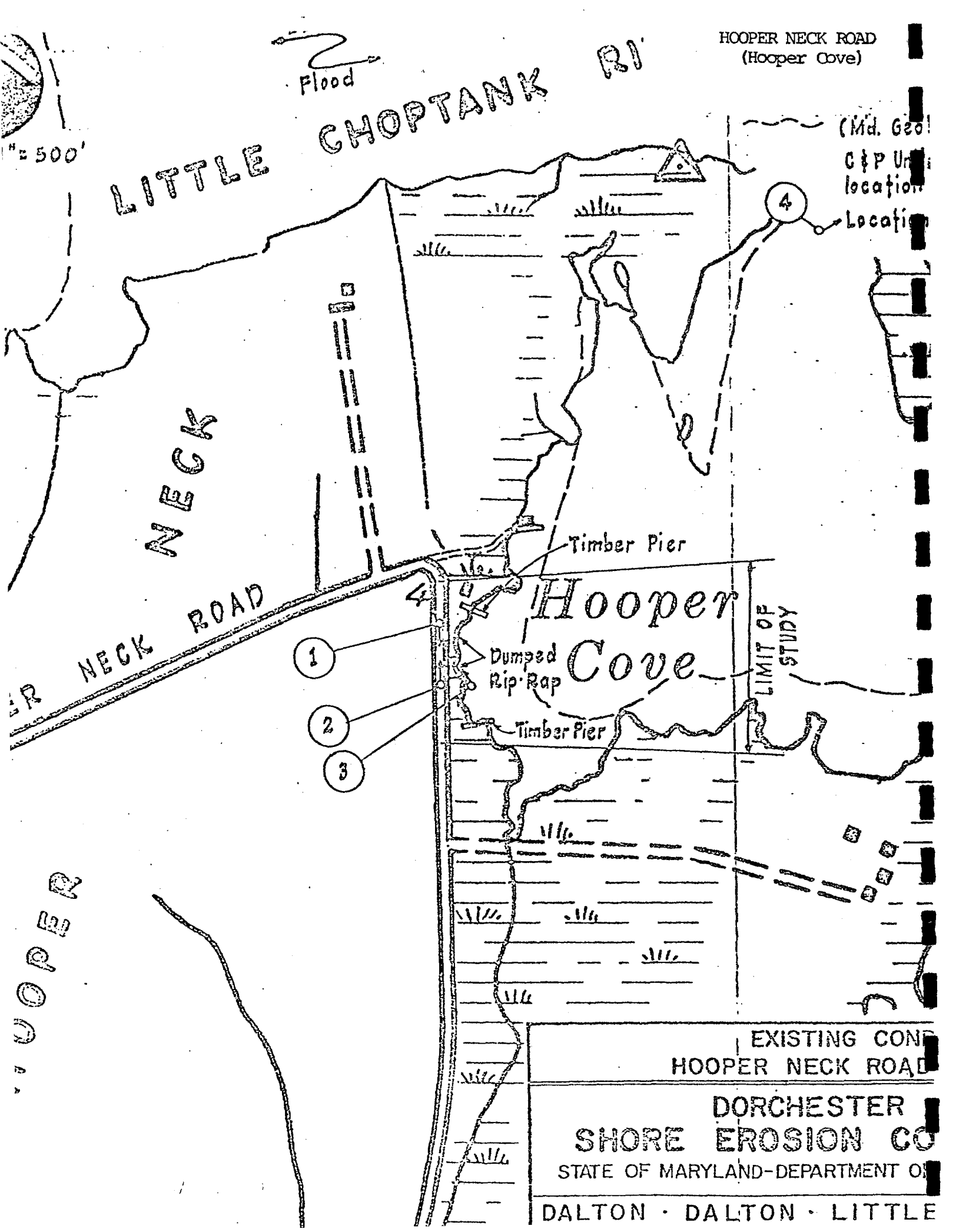
NECK

HOOPER

DAVIS
CREEK

EXISTING
HOOPER NECK F
DORCHESTER
SHORE EROSION
STATE OF MARYLAND-DEPARTMENT

HOOPER NECK ROAD
(Hooper Cove)



(Md. Geol
C & P Un
location
Location

Timber Pier

Dumped
Rip-Rap

Timber Pier

LIMIT OF
STUDY

EXISTING COND
HOOPER NECK ROAD

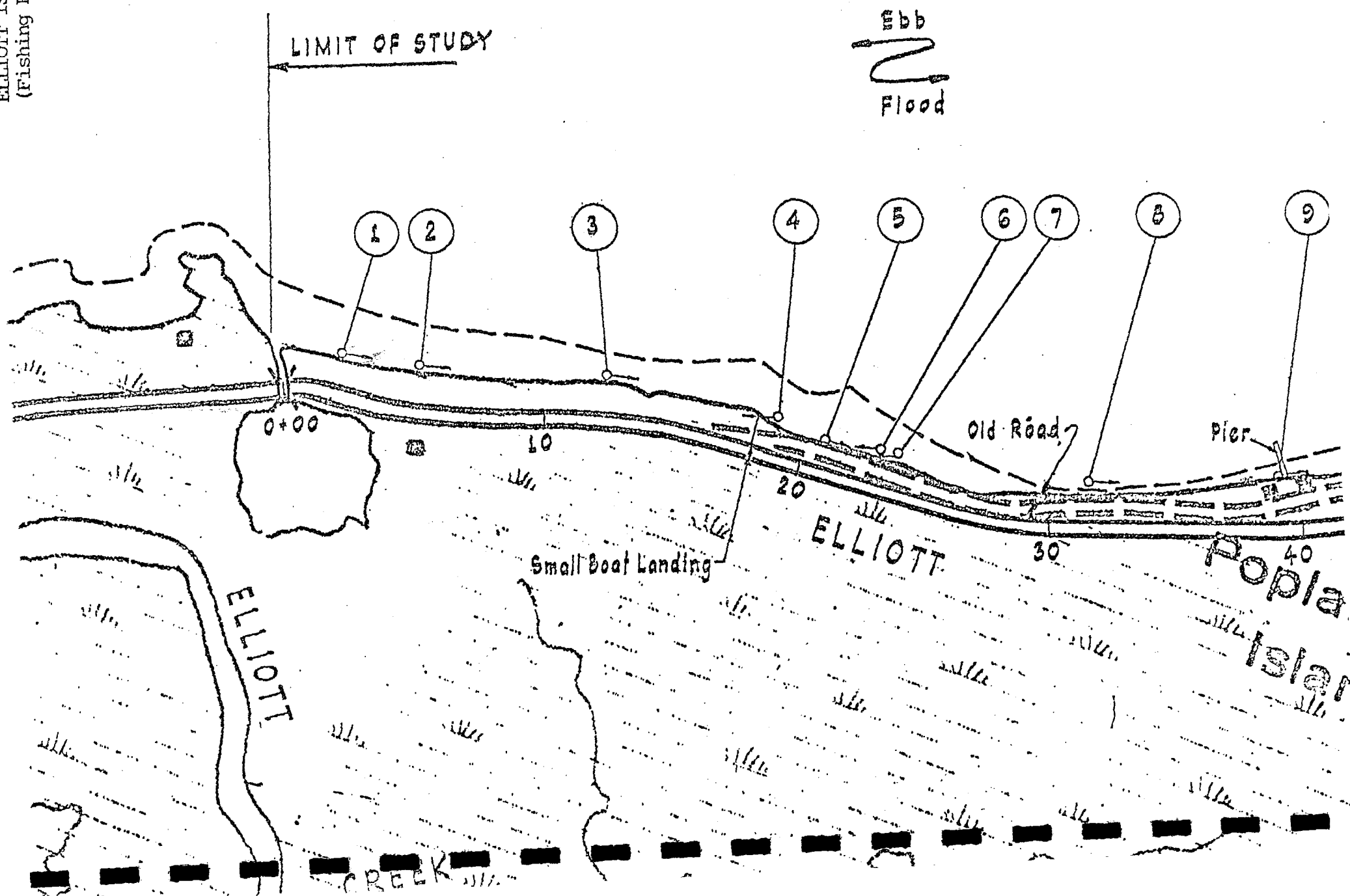
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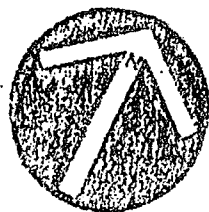
STATE OF MARYLAND-DEPARTMENT OF

DALTON · DALTON · LITTLE

HING

DAY





SCALE 1" = 500'

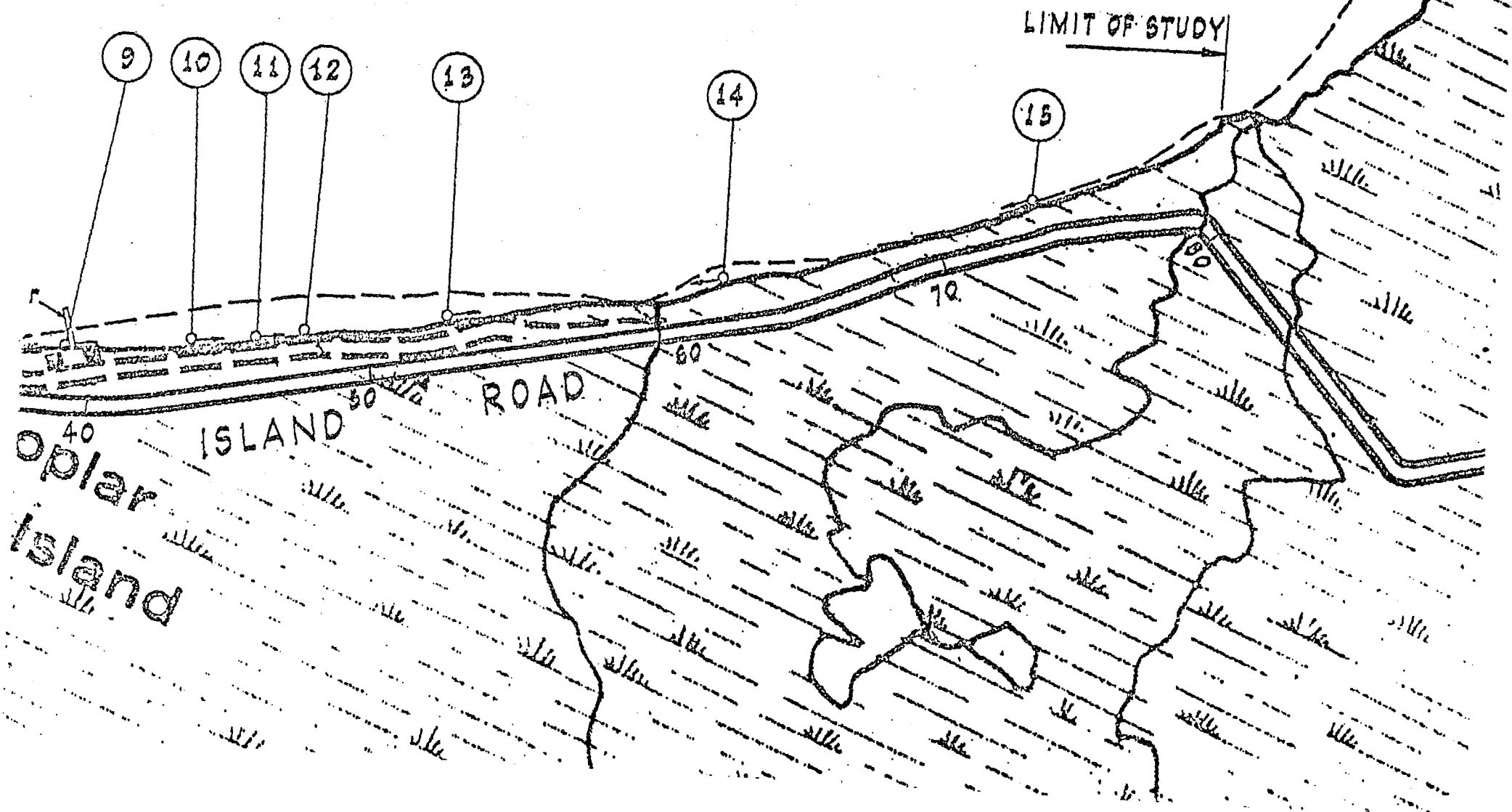
NOTES

Approximate Shore Line - 1942
(USGS Quadrangle Nanticoke, Md.)

Approximate Shore Line - 1849
(Md. Geological Survey)

C&P underground Cable (25 pair) on south
side of old road, north side of new road.

⑥ Location and Direction of Photos



Sample
CRITICAL AREA RECOMMENDATION
RT 50 BOTTLENECKS
CAMBRIDGE AND VIENNA

Step 1: General Categories

Area of Major Public Facilities - Rt. 50 is a primary highway which provides east-west access for much of the Eastern Shore. The two lane bridges at Cambridge and Vienna cause major traffic back-ups, impeding those who travel between the metro areas and the Eastern Shore resorts, as well as those who live in and near Cambridge and Vienna.

Step 2: Establishment of Areas of Critical State Concern

A. Establish State Concern

1. The Rt. 50 bottlenecks at Cambridge and Vienna involve three counties; Dorchester and Talbot at Cambridge and Dorchester and Wicomico at Vienna. In addition, Rt. 50 is the major highway for traffic between the metro areas and the ocean resorts. People from these other counties use Rt. 50 heavily, especially during the summer months.
2. Improvements to or a by-pass of the two bottlenecks will involve large expenditures from the State and Federal governments. The Cambridge improvement is estimated to cost almost \$47 million and the Vienna improvement will cost about \$54 million.
3. The State Highway Administration has begun the planning for both projects under the Primary Highway Program. SHH has programmed some planning monies for Cambridge

through FY 1979 and for Vienna through FY 1978. There is no money programmed for engineering, rights-of-way, or construction. Alternative routes are presently being studied by SHA to determine which is the best way to improve the highway and what is the best location.

B. Establishment of Criticality

1. Each summer traffic is tied up at both the bridge at Cambridge and the bridge at Vienna. Traffic movement from one side of the City to another is impeded by back-ups on Rt. 50. County residents who live as far out as the intersection with Rt. 16 find it difficult to enter onto Rt. 50 from their homes because of the stream of traffic. Vienna residents complain that motorists who are stopped in traffic use their front lawns for "rest areas". The traffic congestion is increasing, which in turn is resulting in greater conflicts between local and through traffic.
2. Although planning activities are being conducted to explore alternatives for both problem areas, no engineering, rights-of-way, or construction monies are programmed in the State's Primary Highway Program. Highway monies, especially on the State level, will be drastically reduced because State revenues based upon the number of gallons of gas sold and the weight of vehicles are less. The traffic problems continue to increase, but the monies to correct the situations are severely decreased. This

lack of revenue on the State level is becoming more severe.

Step 3: Delineation of Area

A. Maryland Coordinate System

The general areas which are being studied by SHA are bounded by the following coordinates.

Cambridge - 1060/300; 1070/300; 1080/290; 1100/280;
1100/260; 1060/260.

Vienna - 1130/250; 1150/240; 1150/230; 1130/230;
1120/240.

B. Election Districts

The election districts for the portions in Dorchester include:

Cambridge - 7, 14, 2

Vienna - 3

C. Assessment Map Numbers

The areas in Dorchester are included on the following assessment maps.

Cambridge - 30, 31, 32, 42

Vienna - 56, 66

D. See attached SHA project area maps

E. Ownership - Multiple owners

Step 4: Significant Features

A. Description

1. Cambridge - The bottleneck around Cambridge is caused by several factors. The bridge over the Choptank River is only wide enough for two lanes, so traffic is funneled

from four lanes of traffic to two on both sides of the river. Rt. 50 within the limits of Cambridge is lined with businesses and industries which local traffic seeks access to. The changing of the number of lanes, access to local businesses and industries, and heavy traffic counts during the summer all help to create this bottleneck. Further east of Cambridge as far as the intersection of Rts. 16 & 50, residents of subdivisions adjacent to Rt. 50 have difficulty entering or leaving the highway during peak traffic flows, especially in the summer.

2. Vienna - The bottleneck around Vienna is caused primarily by the heavy traffic flows crossing the two lane bridge over the Nanticoke and openings of the bridge span for boat traffic during peak hours. There are a few commercial and industrial establishments in Vienna along Rt. 50, but not to the extent of the establishments in Cambridge. Traffic counts along Rt. 50 near Salem which is between Cambridge and Vienna indicate that the average daily (a.d.t.) traffic/during 1975 was 9,000 cars. Traffic along this route is seasonal, however, with the a.d.t. in 1976 during August of 15,740 cars, dropping to the a.d.t. of 9,100 cars by September. Generally the months of heaviest traffic flow are June, July, and August.

B. Additional Information

1. 20 Year Needs Study, Maryland Dept. of Transportation
2. Primary Highway Program, Maryland Dept. of Transportation

3. Persons to contact on SHA alternatives planning:

Mr. Robert J. Hajzyk, Director
Office of Planning and
Preliminary Engineering
State Highway Administration
300 West Preston Street
Baltimore, MD 21201

Mr. James A. Williamson
Project Manager
Bureau of Project Planning
State Highway Administration
300 West Preston Street
Baltimore, MD 21201

Mr. William K. Lee, III
District Engineer - District 1
State Highway Administration
Salisbury, MD 21801

Mr. John M. Zimmer
Project Manager
DeLeuw, Cather and Company
1201 Connecticut Avenue, N.W.
Washington, D.C. 20036

Step 5: Identification of Compatible Uses and Suggested Management Techniques

A. Type of Critical Area - The areas are recommended for utilization for the purposes of constructing improvements to Rt. 50 in Cambridge and Vienna.

B. Compatible Forms and Levels of Activity

The types of land uses, levels of intensity and location of uses can't be pinpointed in either Cambridge or Vienna until an alternative and general alignment are selected for both projects.

1. Cambridge- The Study area identified contains a variety of uses. Rt. 50 is lined with commercial and industrial uses within Cambridge and about 2 miles east of Cambridge. Further east and north of Rt. 50, as well as along Rt 16 are several residential subdivisions.

in
Agricultural and woodlands exist, most of the remaining
areas. There will be some conflicts of land uses
regardless of which alternative for improvement is
selected. However, the benefits of the road improvement
should exceed the conflicts. Since an alternative
for the Cambridge area will probably be selected around
the end of 1977, hopefully a general alignment can be
established so that further conflicting development
can be discouraged.

2. Vienna - The Vienna study area is characterized by a
few commercial and industrial uses along Rt. 50 with
residences and some stores in the remainder of the area.
Outside Vienna are agricultural and woodlands. As is
true of the Cambridge Area, there will be some conflicts
in land uses regardless of the alternative chosen.
While the Vienna area is not experiencing much change
in land uses, the alternative selected should identify
for existing establishments where the road improvement
will occur so that any growth or relocation can be
properly channeled.

C. Management Techniques

1. Selection of Best Alternative and General Alignment
The County and SHA should continue to work toward
selecting the best alternative for each of the projects.
Without an idea of where the improvement will occur,
optional land uses can't be identified.
2. Protection of Alignment - Once the general alignment

is selected, the County can discourage development there either through zoning or by notifying applicants for a building permit in the area of the planned road improvement. If SHA develops an exact alignment, the County could work toward exercising Sections 6.01 and 6.02 of Article 66B for the reservation of locations of mapped streets and control of development in such locations, providing those sections are determined to apply to a County preserving the rights-of-way for a State route. The County should seek the assistance of the Department of State Planning in determining whether these sections are applicable and what special measures, if any, the County would need to take to be able to utilize this provision.

If these provisions can be used by Dorchester to preserve the rights-of-way, the Planning Commission, after public hearing, could adopt the road plat of the highway as developed by the State and submit it to the County Commissioners. If the Commissioners approved and adopted the plat, the platted highway would be protected from development until the State Highway Administration would acquire the rights-of-way. Any compensation required because development would be restricted should be the responsibility of the State.

3. Engineering, Purchase of Rights-of-Way, and Construction of Improvement - The money for engineering, rights-of-way and construction is not programmed by the State in

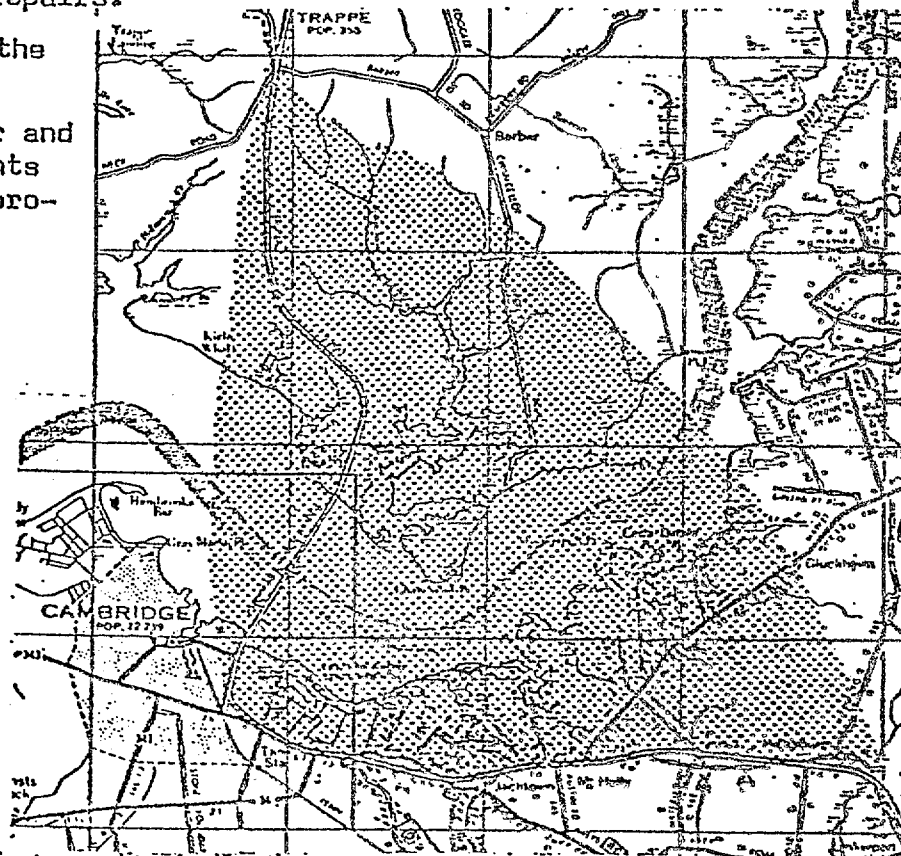
the next five years. With the increasing shortage of money available to the State for roads, Maryland may not be able to complete projects presently on the 5 year construction program for the next 20 years. Even though there is federal money available to assist in in this type of project, the State may not have the matching share. In the annual SHA meetings with the County, both SHA people and the Commissioners should re-evaluate highway projects to determine where the Rt. 50 improvements are in priority and work toward funding completion of the projects. The County should be made aware of any new legislation to change the revenue structure for the Maryland Department of Transportation and examine the advantages and disadvantages of such legislation.

DESCRIPTION AND REFERENCE MAP

This project is to be part of a planned freeway from the Chesapeake Bay Bridge to Ocean City. The existing roadway through Cambridge would not be compatible with the ultimate six-lane freeway which this corridor requires. The purpose of the proposed improvement would be to separate local and through traffic in the Cambridge Business District. It would also relieve the narrow two-lane bridge now serving this traffic. In addition, a dual crossing of the Choptank River would provide an alternate route in case one bridge should be closed by an accident or for repairs.

A bypass of Cambridge is supported by the Dorchester County Comprehensive Plan.

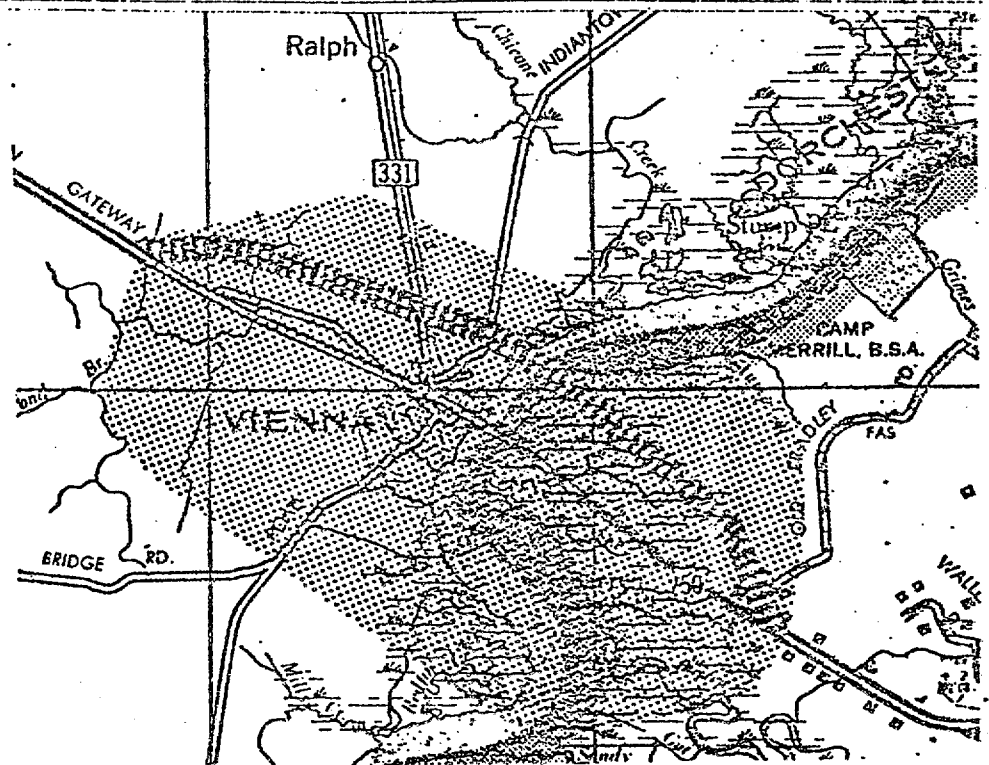
Project planning studies will consider and evaluate all feasible alternate alignments and public involvement in the planning process will be solicited.



The alignment shown does not commit the State Highway Administration to a predetermined location. The alignment is used as the basis of cost estimates in the general area of improvement.

DESCRIPTION AND REFERENCE MAP.

The Vienna By-Pass is one of the top priority projects in upgrading the U.S. 50 corridor from the Bay Bridge to Salisbury. This two-lane section of U.S. 50 through the town of Vienna is hazardous and cannot adequately handle periods of peak traffic. Shaded area shows the study corridor. Tape only shows the alignment used for cost estimating purpose. This segment is part of a continuous improvement to U.S. 50 from the end of the divided highway west of Vienna to east of Old Bradley Road.



The alignment shown does not commit the State Highway Administration to a predetermined location. This alignment is used as the basis of cost estimates in the general area of improvement.

TITLE 16 - DEPARTMENT OF STATE PLANNING

16.00.02 GUIDELINES FOR THE DESIGNATION OF AREAS OF CRITICAL STATE CONCERN

.01 Introduction

- A. Definition of Critical Areas. Areas of critical State concern are those areas of the State which have such unusual or significant **importance** that future use or development of these areas is of concern to citizens of the State.
- B. Recommendations of Local Governments. Legislation enacted in 1974 requires the counties and municipalities of the State and the City of Baltimore to recommend areas within their jurisdiction for consideration by the Department of State Planning (for the purpose of these regulations "the Department") for designation as being of critical State concern.
- C. Critical Areas in Local Plans. Counties and municipalities which derive their planning authority from Article 66B of the Annotated Code of Maryland are required to include critical areas in their local plans. So that the law may be implemented consistently throughout the State, the Department suggests that charter counties and the City of Baltimore also include critical areas in their local plans.
- D. Designation of Critical Areas. Legislation requires the Secretary of the Department of State Planning to identify and designate areas of critical State concern after considering the recommendations of the local governments. The Department is responsible for providing a framework for the future development of the State in a manner which balances the use of environmental, social, and fiscal resources with the accommodation of growth. The areas so identified will serve to guide Federal, State, and local government actions and decisions as well as those of the private sector.
- E. Initial Recommendations. The issuance of these Guidelines established the critical area program for the local subdivisions and the State, and the Department recognizes that the initial local recommendations will not include all the possible critical areas of the State. The extent of the initial recommendations is within the discretion of the local governments giving due consideration to time and resources available for this program. It is intended that a successful critical area program based upon the initial recommendations will provide the basis for additional critical area recommendations in future years.
- F. Purpose of the Guidelines. These Guidelines are intended for use by the local governments of the State in making recommendations for **critical** areas. Citizens and organizations are also encouraged to use these Guidelines in making suggestions to the local governments.

.02 Legislative Authority

- A. The 1974 legislation gave an additional responsibility to the Department in the preparation of plans for the development of the State:

"... The identification of areas of critical State concern, after consultation with and consideration of recommendations submitted to the Secretary by the local subdivisions. The Department may establish guidelines for use by the local subdivisions in making their recommendations as to what are the areas of critical State concern. Every county and the City of Baltimore shall make recommendations to the Department as to the areas within their respective jurisdictions which should be designated as being of critical State concern." (Article 88C, § 2 (b) (3), Annotated Code of Maryland (1969 Repl. Vol.))

- B. The 1974 legislation added another element to the local plan for non-charter counties and municipalities:

"The plan shall include recommendations of the determination, identification, and designation of areas within the county which are of critical State concern." (Art. 66B, § 3.05 (a) (7), Annotated Code of Maryland (1970 Repl. Vol.))

- C. The 1974 legislation requires the Department to consult with units of local government, State and Federal government, and citizens and organizations. (Art. 88C, § 2 (b), Annotated Code of Maryland)

03 Assistance of the Department. The staff of the Department is available to assist and advise local governments and other interested agencies, parties, and individuals as they develop their recommendations and suggestions for critical areas. The Department has collected basic information on physical and cultural features. Base maps and explanatory manuals have been or will be prepared for much of the data, and may have value in the preparation of recommendations for critical areas. The Department will arrange for consultation with other departments and agencies of Maryland government to assist local governments in the development of their recommendations for the designation of critical areas.

04 Procedures for the Designation of Areas of Critical State Concern.

- A. Local Government Study and Investigation, Hearings and Recommendations. Local governments are urged to follow the same local procedures which are used in the preparation of local plans. The Guidelines are not intended to establish detailed procedures, but the local procedures are to embody at least the following elements:
- (1) Preparation of preliminary or draft recommendations for possible areas for review and discussion by citizens, organizations, and units of State and Federal government;
 - (2) Solicitation of suggestions from citizens, organizations, and units of State and Federal government;
 - (3) Broad public participation in the local program for recommending areas of critical State concern. The use of citizen advisory groups is encouraged. In addition to normal public notices, local governments may wish to use notices in the display section of newspapers and press releases to provide notice of local hearings;

- (4) Where a local government is considering recommending an area outside its boundaries, it should refer the area to the appropriate local government so that the local government having jurisdiction over the area may consider the area in formulating its own recommendations;
- (5) Recommendations of an inter-jurisdictional nature may be submitted to a regional planning organization for review and comment (the Department will coordinate reviews when the area affects more than one region of the State);
- (6) Citizens, organizations, and units of State and Federal government should have access to all comments and suggestions received by local governments, and these comments and suggestions should be discussed at the public hearings held by the local governments;
- (7) Formal adoption of recommendations by the local governing body. The local governments are expected to use their existing planning staff, planning commission, or planning advisory board, but the final recommendations are to be adopted by the local governing body and submitted to the Department. The local government also shall submit all suggestions received.

B. Designation of Areas of Critical State Concern by the Department.

- (1) Following receipt of the local recommendations, the Department will formulate proposed designations of areas of critical State concern. The Department will seek the advice of qualified professionals and experts.
- (2) The proposed designations of areas of critical State concern will be distributed for review and comments to local governments, units of State and Federal government, and interested citizens and organizations. The Department will consult with local governments in their role as designated advisors for the Generalized State Land Use Plan.
- (3) After consideration of comments made on the proposed designations, the Department will designate areas of critical State concern. The State Planning Commission will advise the Department during the designation process. The final designations will be submitted to the Governor, who may file them, together with his comments, with the Secretary of State, and copies will be submitted to members of the General Assembly and to units of State and local governments, and made available throughout the State.

.05 Time Schedule for Designation of Areas of Critical State Concern

- A. Preparation and adoption of recommendations by local governments and submission to the Department on or before April 1, 1977.
- B. July, 1977. The Department distributes proposed designations.
- C. July 1, 1977 - September 1, 1977. Review of proposed designations.
- D. October 1, 1977. Final designation of areas of critical State concern by the Department.
- E. December 1, 1977 - June 1, 1978. Local governments incorporate areas of critical State concern in local plans.

- F. Annual review and modification. The present effort is aimed at producing initial recommendations for critical areas. The Department will request recommendations for additions or modifications on an annual basis commencing July 1, 1979.

06 Methodology and Format for Recommending Areas of Critical State Concern.

- A. Introduction. These guidelines are intended to remain flexible, but it is important that recommendations for critical areas be presented in a form that is uniformly applicable throughout the State. Therefore, the purpose of this section is to describe both the considerations to be applied in making recommendations and the form by which recommendations are to be made.
- B. The process for preparing recommendations for critical areas includes the following general sequence of steps:
- (1) Inventory areas by general categories;
 - (2) Establish which areas are of critical State concern;
 - (3) Delineate each specific area or site;
 - (4) Describe each area or site in terms of its existing significant features;
 - (5) Identify compatible uses and suggest management techniques.

07 Step 1 - General Categories.

- A. Each jurisdiction should make a preliminary determination as to whether the following general categories relate to sites worthy of consideration as potential critical areas. The list may be modified depending on the characteristics of the respective jurisdiction. These categories are presented only as a general check list to assist local jurisdictions as they initiate their inventory process:
- (1) Natural Areas (including buffer areas or adjoining land)
 - a. Rivers,
 - b. Bays and estuaries,
 - c. Wetlands,
 - d. Beaches,
 - e. Dunelands,
 - f. Prime wildlife habitat,
 - g. Rare animal habitat,
 - h. Rare vegetation,
 - i. Other.
 - (2) Areas of Special Public Concern (includes buffer areas or adjoining land)
 - a. Reservoirs,
 - b. Floodways,
 - c. Seismic zones,
 - d. Steep slopes,
 - e. Aquifer recharge areas,
 - f. Noise hazard areas,
 - g. Areas with high air pollution potential,
 - h. Areas with (existing or potential) groundwater problems,
 - i. Public water supply watersheds,
 - j. Public water supply wellfields,
 - k. Other.

- (3) Areas of Special Economic Concern (includes buffer areas or adjoining land)
 - a. Prime industrial sites,
 - b. Prime agricultural land,
 - c. Prime forestry land,
 - d. Mineral extraction sites (existing or potential),
 - e. Other.
- (4) Areas of Cultural Concern (includes buffer areas or adjoining land)
 - a. Historic areas or sites,
 - b. Other.
- (5) Areas of Major Public Facilities (includes buffer areas or adjoining land)
 - a. Major highways, road corridors, interchanges, bridges,
 - b. Railroads,
 - c. Airport, airpark,
 - d. Marine terminals,
 - e. Educational facility,
 - f. Institutional facility (for example, health and corrections),
 - g. Defense installations,
 - h. Transit impact areas,
 - i. Other.
- (6) Areas Held in Public Trust (includes buffer areas or adjoining land)
 - a. Nature and historic preserves,
 - b. Parks,
 - c. Wilderness areas,
 - d. Historic sites,
 - e. Public rights-of-way,
 - f. State or Federal forests,
 - g. Other.
- (7) Private Development with an Interjurisdictional Impact (includes buffer areas or adjoining land)
 - a. Recreation,
 - b. New towns or planned large-scale developments,
 - c. Port facilities,
 - d. Other.

.08 Step 2 - Establish Areas of Critical State Concern. In determining areas of critical State concern, there are two major considerations. They are: establishing "State concern", and establishing "criticality". An area must meet the criteria for "State concern" and for "criticality" for it to be an area of critical State concern.

- A. Establish State Concern. An area of "State concern" shall be defined as a specific geographic area that is characterized by a feature or features which contribute substantially to or have a substantial effect upon the social, economic, or environmental welfare of the citizens of the State. The following, either singularly or in combination, more specifically define that which is of State concern:

- (1) an area which is characterized by a feature or features that are unique, significant, or scarce;
- (2) an area in which land actions and public facility development actions create interjurisdictional concern;
- (3) an area in which the expenditure of fiscal resources introduces a concern for the financial resources of the State;
- (4) an area which, by its nature or location, is essential to, is impacted by, or has an impact upon, State policies, plans, and programs.

B. Establish Criticality. For the purpose of these guidelines, an area which is of "critical" concern shall be defined as a geographic area which:

- (1) because of its inherent characteristics or vital location is susceptible to physical alteration, destruction, or loss; or
- (2) contains valuable natural resources, existing or proposed large-scale developments, or existing or proposed major public facilities, the use, preservation, or conservation of which may be preempted or curtailed by the establishment of other land uses.

.09 Step 3 - Delineate a Specific Area or Site.

- A. This step involves the delineation of specific areas which have been identified in Step 2 as being of critical State concern. Each specific area should be delineated geographically on a map. The scale of the map should be suitable to show the boundaries and characteristics of the specific area. Maps readily available for this purpose are (but are not limited to) United State Geological Survey quad maps, Maryland Geological Survey topographic maps, State Highway Administration maps, etc. This, in turn, should be augmented by certain locational data including county, election district, and map coordinates (for example, center point, Maryland Coordinate Grid System, relation to known features). Ownership (public or private) information should be submitted.

.10 Step 4 - Describe the Specific Areas or Sites in Terms of Their Significant Features.

- A. Description. A concise description of the existing significant features in each recommended specific area or site should be given. For example, a stream may be described in terms of its source, volume, direction of flow and point of discharge, water quality, scenic quality, etc.
- B. Additional Information. Sources of information should be included. This section may include: dates of inventory and evaluation, names and addresses of persons who have knowledge of the area, pictures, maps, and any other information which will help to support the recommendation of the area as one of critical State concern.

.11 Step 5 - Identify Compatible Uses and Suggest Management Techniques.

- A. The designation of an area of critical State concern does not imply that all activity must cease within the area. The designation should serve to insure use of the area in a manner that is most compatible with its attributes. For example, interchanges and airports could both be designated critical, and subsequent development would be encouraged in a planned and orderly fashion. The

same can be stated for reserving a tract of land for future industrial growth where such land is limited and vulnerable to a less than optimum use. The following three-part process provides a method for both the identification of land use issues and the suggestion of appropriate management techniques to insure uses which are compatible and protective of each specific area's inherent characteristics.

- (1) Framework for Critical Area Designation. After a specific area is identified as one of critical State concern, that area is to be placed in one of the three critical area types described below which are intended to reflect the nature of the land use or uses which would be most compatible in a given critical area.
 - a. "Critical Areas that are Suitable for Preservation" are areas where most forms and levels of alteration resulting from human activity may create disturbances which have a high probability of resulting in a significant adverse impact upon the inherent characteristics of the area and where strict management is necessary to retain the area's inherent characteristics and attributes.
 - b. "Critical Areas that are Suitable for Conservation" are areas where alterations through various forms and levels of human activities can be accommodated without resulting in a significant adverse impact upon the inherent characteristics and attributes of the area given appropriate management practices.
 - c. "Critical Areas that are Suitable for Utilization" are areas where alterations through human activity can be accommodated and encouraged, although by the nature of the area, development, or facility there exists a potential for significant multijurisdictional, environmental, or fiscal impacts, that should be given appropriate consideration; and areas which are judged desirable for some predetermined use and should be maintained in their present state to prevent irreversible commitment of the site or its resources.
- (2) Compatible Forms and Levels of Activity. This consists of an assessment of the suitability of various types of land uses which might occur within a designated critical area and in the buffer areas or adjoining land. It includes a summary of recommended compatible forms and levels of activity.
- (3) Management Techniques. The purpose of the designation of critical areas is to insure that the future use or development of these areas is consistent with their attributes. The legislation and the designation process do not establish any additional State regulatory authority, and existing local and State authority may be used to implement the critical area program. The local governments should propose, in general, the manner by which the local recommendations are to be implemented. Sources of authority for critical area management include the following, but this list does not preclude the use of other authority:
 - a. Local planning and land use regulations, including zoning, subdivision, related health, sanitation, environmental, housing, and other regulations;

- b. Local acquisition, local tax incentives, or management of property owned by local governments;
- c. State regulatory programs, such as State wetlands, or flood plain, water quality, air quality, and transportation;
- d. State acquisition, State tax incentives, or State management of State-owned land;
- e. Federal acquisition or Federal management of Federally-owned land;
- f. Management by private citizens or organizations.

.2 Role of State and Local Governments After Designation of Critical Areas.

- A. Local and State Responsibilities. The legislation regarding critical areas uses the existing planning and land use powers of units of local and State government. The designation process is intended to result in the establishment of management programs for critical areas. The role of local governments is to recommend critical areas for designation by the Department and, included in the recommendation, to propose the most appropriate management techniques to be carried out by local governments, State or Federal government, or by private parties. Following designation of critical areas by the Department, the role of local governments is to implement the critical area recommendations where they involve local responsibilities, and to cooperate in the implementation of the critical area recommendations where local responsibilities are not involved. Where critical areas involve more than one jurisdiction, management programs should be developed cooperatively. The role of the Department is to identify and designate areas of critical State concern and then to advise and assist units of State and Federal government to implement the critical area designations.
- B. Notice of State Actions or Programs Affecting Critical Areas. Following designation of critical areas, the Department will request State agencies to notify the Department of any proposed action which may affect a critical area. The Department will then confer with the appropriate local government, and, in cooperation with the local government, make recommendations to the State agency.

3 Relation of Areas of Critical State Concern to Intervention by the Department.

- A. Explanation of the Authority to Intervene. The legislation also authorized the Department to participate as a party in any administrative or judicial proceeding involving land use, development, or construction. The Department has no authority to veto or overrule a local proceeding, but may apply for judicial review or appeal. (Art. 88C, § 2 (q), Annotated Code of Maryland (1969 Repl. Vol.).)
- B. Exercise of the Authority to Intervene in Areas of Critical State Concern. The Department has adopted standards of intervention which establish a general policy that the Department will not intervene in proceedings involving critical areas if the local government has adopted measures which set explicit standards for management of the area in a manner consistent with the inherent characteristics which supported its designation. A local government may request that the Department participate in a particular proceeding. This will be the general policy of the Department although there may occur exceptions in extraordinary circumstances.

The purpose of this policy is to encourage local governments to participate actively in the program for the designation of areas of critical State concern and to adopt implementing regulations or management measures for those areas.

.14 Time Schedule for Compliance with Article 66B, Annotated Code of Maryland.

- A. Explanation. Chapter 363 of the Laws of 1975 requires that non-charter counties and municipalities comply with the provisions of Article 66B of the Annotated Code of Maryland by December 31, 1975 (Chapter 8 of the Laws of 1975 established a compliance date of October 31, 1975 for Somerset County). On December 11, 1974, the Department suspended for an indefinite period of time the compliance date for the critical area portion of the local plan (Article 66B, § 3.05 (a) (7)). (See Vol. 1, Maryland Register, p. 242, December 11, 1974).
- B. New Compliance Date for Critical Area Portion of Local Plan. Pursuant to the time schedule established in .05, above, of these guidelines, the date for compliance with § 3.05 (a) (7) of Article 66B, applicable to non-charter counties and municipalities, is June 1, 1978.

State Intervention Standards

MARYLAND DEPARTMENT OF STATE PLANNING

16.00.03 STANDARDS FOR INTERVENTION IN LAND USE PROCEEDINGS

- .01 Authority. Chapter 291 of the Laws of Maryland of 1974 establishes this additional power and duty of the Department of State Planning (the Department):

Have the right and authority to intervene in and become a party to any administrative, judicial, or other proceeding in this State concerning land use, development or construction. Upon intervention, the Department shall have standing and all rights of a party in interest or aggrieved party, including all rights to apply for judicial review and appeal. In addition, it may file a formal statement of environmental or economic impact expressing the views of the Department and any other unit of the State government. The right of intervention in any administrative, judicial or other proceeding in this State may be exercised only in accordance with applicable rules or procedure and law as they relate to the proceeding. The Department and the governing bodies of the local subdivisions shall establish procedures for notification of the Department of applications for zoning, permits, or authority to use, develop, or construct upon land which involve more than a local impact and is of substantial State or regional interest.

Article 88C, Section 2 (q), Annotated Code of Maryland (1969 Repl. Vol., 1974 Cum. Supp.).

- .02 Nature and Purpose of Intervention. The decisions of local governments and other governmental bodies involving land use, development or construction often have major consequences upon the State as a whole. The intervention authority enables the Department to participate in proceedings as a party, and offer the views of the Department or of another unit of State government. The local government or other governmental body is thus informed of the views of the Department or other unit of State government and able to consider the State's views in reaching a decision. The Department is given the authority to participate as a party in a proceeding, but has no authority to veto or overrule a land use decision.
- .03 General Standards for Intervention. The Department is a unit of State government, and participation in proceedings involving land use, development or construction will be limited to those instances which involve a substantial State or inter-jurisdictional interest. The Department will not participate in land use proceedings which are strictly local in nature and not of substantial State or inter-jurisdictional interest.

.04 Intervention in Proceedings of Local Governments.

A. Review and Recommendations on Basic Plans and Regulations.
There are certain plans and regulations which, when adopted, serve as the foundation for future proceedings involving land use, development or construction. These plans and regulations also affect all or a substantial portion of a city or county. Because of their importance, the Department will review all such plans and regulations and make recommendations to the local governments as and when appropriate. The participation of the Department may take the form of a written communication to the local government, or it may involve active participation in a hearing prior to adoption. The Department will review and make recommendations when appropriate with respect to the following:

- (1) The adoption and amendment of comprehensive plans and area plans;
- (2) The adoption and amendment of zoning, subdivision and other land use regulations;
- (3) Comprehensive zoning or comprehensive rezoning.

B. Participation in Individual Proceedings of Local Governments.
The term "individual proceedings" is meant to include zoning map amendments, special exceptions and variances, administration of subdivision regulations and other land use, development or construction proceedings which normally involve only a single property or a small number of properties. The Department will intervene only if the proceeding involves matters of more than local impact and of substantial State or inter-jurisdictional interest. The Department will utilize certain criteria, but the presence of one or more of these factors does not necessarily mean that the Department will intervene. The Department will base a decision to intervene upon the following general criteria:

- (1) Consistency with State plans and programs;
- (2) Impact upon major State facilities;
- (3) Interjurisdictional impacts;
- (4) Compatibility with local plans, regulations, enabling authority, and judicial decisions;
- (5) Magnitude of results and impacts;
- (6) Substantial economic or environmental impact.

C. Intervention in Proceedings Involving Areas of Critical State Concern. Chapter 291 of the Laws of 1974 requires the iden-

- .08 Coordination with Units of State Government. In exercising the intervention authority, the Department will coordinate its activities with other units of State government, and will inform other units of State government of its intention to intervene when such intervention may be of interest to another unit of State government.
- .09 Notification of Intervention. Prior to intervening in a proceeding, the Department will notify the affected governmental unit and the party who requested intervention (if any) of its intention to intervene.
- .10 Standards Do Not Limit Authority. These standards are intended to inform units of State and local government and individuals and organizations of the general standards and procedures which will be followed by the Department, but do not curtail or limit the intervention authority established by Chapter 291 of the Laws of Maryland of 1974.

Vladimir A. Wahbe
Secretary
Maryland Department
of State Planning

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- .10 Standards Do Not Limit Authority. These standards are intended to inform units of State and local government and individuals and organizations of the general standards and procedures which will be followed by the Department, but do not curtail or limit the intervention authority established by Chapter 291 of the Laws of Maryland of 1974.

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Notification Procedure Between
Anne Arundel County and Department of State Planning

The intervention standards call for the Department of State Planning to develop notification procedures with each county. Procedures have already been established with most counties, similar to the procedure listed below for Anne Arundel County:

The following procedures are established to implement the requirements of Chapter 291 of the Laws of Maryland of 1974 that the local governments and the Department of State Planning (Department) establish procedures to notify the Department of applications for zoning, permits, or authority to use, develop or construct upon land which involve more than a local impact and are of substantial State or regional interest. These procedures will be utilized in conjunction with the adopted "Standards for Intervention in Land Use Proceedings" as published in the Maryland Register, October 15, 1975.

These procedures are designed to notify the Department of matters which might be of concern to the State. Notification does not mean that the Department will or should participate in a particular proceeding. It is also recognized that these procedures may be changed or amended from time to time by mutual agreement.

Chapter 291 specifies that the Department's participation in land use proceedings may be exercised only in accordance with applicable rules of procedure and law as they relate to the proceeding. Accordingly, the Department must observe applicable time limits established by Anne Arundel County.

The Department will express its views, if any, beginning with the first review of a particular proceeding by the Office of Planning and Zoning. As appropriate, views will be expressed throughout the various steps in the review process. Notification to the Department should be at the earliest feasible time but not later than the date any public notice is given.

There are certain plans and regulations which, when adopted, serve as the foundation for future proceedings involving land use, development or construction. These plans and regulations also affect all or a substantial portion of Anne Arundel County. Because of their importance, the Department will review all such plans and regulations and express views as and when appropriate.

Notification steps are established for proceedings related to adoption or amendment of the following plans and regulations:

1. Adoption or Amendment of Comprehensive Plan, including elements thereof such as open space, transportation, etc., but not including water and sewer. Copies of these proposals will be referred to the Department together with the date when these matters will be considered by the Planning Advisory Board and the County Council. The Department will express its views first to the Office of Planning and Zoning, and to the Planning Advisory Board and the County Council as appropriate.

2. Adoption or Amendment of Text of Zoning or Subdivision Regulations. Copies of these proposals will be referred to the Department together with the date when these matters will be considered by the Planning Advisory Board and the County Council. The Department will express its views first to the Office of Planning and Zoning, and to the Planning Advisory Board and the County Council as appropriate.

3. Comprehensive Zoning or Comprehensive Rezoning. The proposed zoning map will be referred to the Department together with a time when a response is required by the county. The Department will express its views to the Office of Planning and Zoning, and to the Planning Advisory Board and the County Council as appropriate.

Proceedings which involve only a single property or a small number of properties are termed "individual proceedings." Notification procedures for individual proceedings are established as follows:

1. Zoning Map Amendments. Pursuant to the quarterly cycle in Anne Arundel County, all applications for zoning map amendments, together with accompanying site plan where possible, will be referred to the Department utilizing the county's standard transmittal form. Within the standard time period, the Department will indicate its views, including a statement of no comment, to the Office of Planning and Zoning, and subsequently may express its views to the Zoning Hearing Officer, with notification to the Office of Planning and Zoning. The Department will routinely receive a copy of the Planning Director's report to the Zoning Hearing Officer and the agenda of the Zoning Hearing Officer from the Office of Planning and Zoning.

2. Special Exceptions and Variances. The Department will be referred all applications for special exceptions and variances pursuant to the county's standard transmittal form and will express its views, including no comment, to the Office of Planning and Zoning within the standard time limit and, as appropriate, to the Zoning Hearing Examiner. For those matters in which the Department has expressed an interest, it will receive the report of the Office of Planning and Zoning and the date when the matter will be heard by the Zoning Hearing Officer.

3. Planned Unit Developments. The Department will be referred only the initial application for a planned unit development together with the time a response is required; and the Department will respond with a statement of interest or no comment. If the Department expresses an interest in the planned unit development, it will receive the other materials with respect to the application and will express its views first to the Office of Planning and Zoning, and to the Zoning Hearing Officer as appropriate.

4. Subdivisions. The Department will not receive applications for residential subdivisions of three lots or less, but will receive all other applications, including applications for subdivisions for commercial or industrial purposes pursuant to the standard subdivision review procedures of Anne Arundel County. Together with the application the Department will receive a vicinity map; it is not necessary that the Department be sent preliminary plats unless it is necessary to show the vicinity of the proposed subdivision. The Department will express its interest, including no comment, within the standard time period to the Office of Planning and Zoning.

5. Other Proceedings. There may be other plans, regulations, and programs of the State or of Anne Arundel County which affect land use, construction and development in Anne Arundel County. The county and the Department of State Planning will endeavor to keep each other informed of such plans and programs. After receiving notification, the Department or Anne Arundel County may participate in the proceeding.

6. All notices should be sent to Mr. Stoney Fraley, Department of State Planning, State Office Building, 301 West Preston Street, Baltimore, Maryland 21201.

Otter Point Creek Intervention Case

The following material constitutes the pleadings on the Otter Point Creek intervention case. This is the only intervention case to date in which formal legal action has been involved. The final document - "Agreement" and "Restrictive Covenant" has not been signed at the time of this printing but is expected to be finalized by March 4, 1977, in substantially the same form as presented on the following pages.

Josephine W. Berg
821 Edgewood Road
Edgewood, Maryland 21040

Earl F. Lantz
801 Edgewood Road
Edgewood, Maryland 21040

Mary Lantz
801 Edgewood Road
Edgewood, Maryland 21040

League of Women Voters of
Harford County
2023 Emmorton Road
Bel Air, Maryland 21014

Maryland Department of
State Planning
Room 1101
301 West Preston Street
Baltimore, Maryland 21201

Appellants

v.

Charles B. Anderson, Jr.
County Executive of Harford County
County Office Building
Bel Air, Maryland 21014

and

Harford County, a body corporate
County Office Building
Bel Air, Maryland 21014

Appellees

Order for Appeal

Please note the appeal of Josephine W. Berg, Earl F. Lantz, Mary Lantz, League of Women Voters of Harford County, and the Maryland Department of State Planning, from the action of Charles B. Anderson, Jr., and Harford County dated February 10, 1976 in approving Final Plat, Plat 1 Westshore, Final Plat, Plat 2 Westshore and Plat 3, Part of Westshore, Exhibits A, B and C attached hereto, filed by Stephen E. Quick and LeRoy H. Smith for the development known as the Westshore Subdivision.

Charles B. Keenan, Jr.
Cameron & Reed
30 Office Street
Bel Air, Maryland 21014
838-7575
Attorney for Josephine W.
Berg, Earl F. Lantz, Mary
Lantz, and the League of
Women Voters of Harford
County

Francis B. Burch
Attorney General

John C. Murphy
Assistant Attorney General
301 West Preston Street
Baltimore, Maryland 21201
383-2484
Attorney for Maryland
Department of State Planning

Certificate of Service

I HEREBY CERTIFY that on this _____ day of _____,
1976, I mailed a copy of the foregoing Order for Appeal and
the attachments thereto to each of the Appellees named above
at the addresses indicated and to Stephen E. Quick and LeRoy
H. Smith, Partners, T/A as Marquis Associates, 516 Copeland
Road, Fallston, Maryland 21047.

Charles B. Keenan, Jr.

Josephine W. Berg
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Mary Lantz
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League of Women Voters of
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Maryland Department of
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Appellants

v.

Charles B. Anderson, Jr.
County Executive of Harford County
County Office Building
Bel Air, Maryland 21014

and

Harford County, a body corporate
County Office Building
Bel Air, Maryland 21014

Appellees

Petition

Josephine W. Berg, Earl F. Lantz, Mary Lantz, and the
League of Women Voters of Harford County, by their attorney,
Charles B. Keenan, Jr., and the Maryland Department of State
Planning, by its attorneys, Francis B. Burch, Attorney Gen-
eral and John C. Murphy, Assistant Attorney General, Appel-
lants, pursuant to the Maryland Rules (subtitle B), say:

Jurisdiction and Action Appealed From

1) An Order for Appeal has been filed on this date from
the action of Charles B. Anderson, Jr., County Executive of
Harford County, and Harford County, Maryland, in approving

final subdivision plats (Final Plat, Plat 1 Westshore, Final Plat, Plat 2 Westshore, Plat 3, Part of Westshore) (Exhibits A, B and C) (hereinafter referred to as "Final Plats") filed on behalf of Stephen E. Quick and LeRoy H. Smith, T/A Marquis Associates (Marquis Associates) on February 10, 1976 for the development known as the Westshore Subdivision.

2) The Appellants, Josephine W. Berg, Earl F. Lantz and Mary Lantz are owners of property in the neighborhood of the proposed Westshore Subdivision and they and their property will be specially damaged by development of the Westshore Subdivision pursuant to the final plats approved by Appellees Charles B. Anderson, Jr. and Harford County.

3) The Appellant, Maryland Department of State Planning, is authorized by Article 88C, Section 2 of the Annotated Code, to intervene and become a party in any proceeding involving land use, development or construction and hereby exercises the right of intervention in the proceeding for the approval of the final plats described above and exercises the right to apply for judicial review as authorized by Section 2 of Article 88C of the Annotated Code.

Errors Committed by the Appellees
Charles B. Anderson, Jr. and Harford County

4) Marquis Associates received authorization from the Harford County Board of Appeals for a conditional use for a proposed development of apartments pursuant to a decision of the Board of Appeals in Case No. 1849 dated June 11, 1973. The decision of the Board of Appeals established certain conditions and required that subdivision plats conform with the terms of the decision of the Board of Appeals.

4) The action of the Appellees is invalid, because:

(a) The final plats approved by the Appellees do not show that the layout of the project and the location of the buildings, streets and parking areas are substantially

in accordance with the plans presented by Marquis Associates at the hearing of the Board of Appeals and filed in the case file of the Board of Appeals. The decision of the Board of Appeals approved a development of multi-family apartments or condominium units, and the subdivision plats approved are for townhouses. This results in a different layout and different location of buildings, streets and parking areas.

(b) The landscaping for the townhouse development shown in the final plats is different than the landscaping proposed for the apartment development approved by the Board of Appeals.

(c) The recreation areas shown in the final plats are different than the recreation areas shown on the plans approved by the Board of Appeals.

(d) The parking areas shown on the final plats are different than the parking areas shown on the plan approved by the Board of Appeals.

(e) That the necessary approvals have not yet been obtained for the road shown on the final plat as Westshore Drive.

(f) The final plats do not show that all construction will be done above an elevation of one foot above the 100 year flood plain. It was impossible to comply with the condition that provision be made for channeling the surface run-off water so that it does not cause flooding in the area of the proposed apartment buildings since the final plats are not for apartment buildings but rather for townhouses.

(5) The action of the Appellees is unsupported by any substantial evidence and is arbitrary and capricious in the following respects, among others:

(a) The final plats approved by the Appellees are not substantially in accordance with the plan presented at

the hearing of the Board of Appeals with respect to the lay-out of the project and location of buildings, streets and parking areas, and with respect to the other conditions established by the Board of Appeals in Case No. 1849.

(b) The Appellees, Charles B. Anderson, Jr. and Harford County, have no authority to approve subdivision plats which do not conform to the zoning for the property as established by the decision dated June 11, 1973 of the Board of Appeals in Case No. 1849.

(c) That the action of the Appellees in approving the final plats violates Section 4.01 and other provisions of the Harford County Subdivision Regulations and Section 6.01 and other provisions of the Harford County Zoning Ordinance.

WHEREFORE, the Appellants pray:

- 1) That the action of Charles B. Anderson, Jr. and Harford County in approving the subdivision plats be reversed.
- 2) That the Court issue an injunction prohibiting any development of the property pursuant to the approval of the final plats.
- 3) That the Appellants have such further relief as their case may require.

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838-7575
Attorney for Josephine W.
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Lantz, and the League of
Women Voters of Harford
County

Francis B. Burch
Attorney General

John C. Murphy
Assistant Attorney General
301 West Preston Street
Baltimore, Maryland 21201
383-2484
Attorney for Maryland
Department of State Planning

Certificate of Service

I HEREBY CERTIFY that on this _____ day of _____,
1976, I mailed a copy of the foregoing Petition and the
attachments thereto to each of the Appellees named above
at the addresses indicated and to Stephen E. Quick and
LeRoy H. Smith, Partners, T/A as Marquis Associates, 516
Copeland Road, Fallston, Maryland 21047.

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Plaintiffs

v.

Charles B. Anderson, Jr.
County Executive of Harford County
County Office Building
Bel Air, Maryland 21014

and

Harford County, a body corporate
County Office Building
Bel Air, Maryland 21014

and

Stephen E. Quick
LeRoy H. Smith
Partners, T/A Marquis Associates
516 Copeland Road
Fallston, Maryland 21047

Defendants

Bill for Declaratory Judgement

Josephine W. Berg, Earl F. Lantz, Mary Lantz, and the
League of Women Voters of Harford County, Plaintiffs, by their
attorney, Charles B. Keenan, Jr., and the Maryland Department
of State Planning, Plaintiff, by its attorneys, Francis B.
Burch, Attorney General, John C. Murphy, Assistant Attorney
General, bring this suit under the provisions of Section 3-401
et seq. of the Courts and Judicial Proceedings Article of the
Annotated Code of Maryland, the Uniform Declaratory Judgement

Act, and complaining of the Defendants, say:

1) That the Plaintiffs, Josephine W. Berg, Earl F. Lantz, and Mary Lantz, live and are the owners of property in Harford County in the vicinity of the Westshore Development which is the subject of this action and they and their properties will be particularly and specially affected by the development which is the subject of this action;

2) That the Maryland Department of State Planning is authorized by Section 2 of Article 88C of the Annotated Code of Maryland to intervene and become a party in any proceeding involving land use, development or construction and hereby exercises the right of intervention in the proceeding concerning the approval of plats for the Westshore Development described below and exercises the right to apply for judicial review as authorized by Section 2 of Article 88C;

3) That on February 10, 1976 the Defendant Anderson approved final subdivision plats for the proposed Westshore Development filed on behalf of Defendants Stephen E. Quick and LeRoy H. Smith, namely: (a) Final Plat, Plat 1 Westshore, Recorded in Plat Book 35, Folio 1; Final Plat, Plat 2 Westshore, Recorded in Plat Book 35, Folio 2; Plat 3, Part of Westshore, Recorded in Plat Book 35, Folio 3 (Exhibits A, B and C respectively, hereinafter referred to as "Final Plats");

4) That the final plats are for property which was the subject of a Board of Appeals decision in Case No. 1849 on June 11, 1973, granting a conditional use which established ten separate conditions including the basic requirement that any subdivision plat conform with the terms of the Board of Appeals decision in Case No. 1849;

5) That the subdivision plats do not conform with the decision of the Board of Appeals in Case No. 1849 in the following respects:

(a) The layout of the project and location of buildings, streets and parking areas shown in the final plats are not substantially in accordance with the plans presented at the hearing and filed in the case file of Case No. 1849 in that the final plats show a townhouse layout and the plan approved by the Board of Appeals was for an apartment house layout and the layout of the project and the location of buildings, streets and parking areas are substantially different in the final plats than are shown on the plan approved by the Board of Appeals.

(b) That the landscaping for the project shown on the final plats will be different from the landscaping for the plan approved by the Board of Appeals.

(c) That the recreation areas shown on the final plats are different from the recreation areas shown on the plan approved by the Board of Appeals.

(d) That the parking areas shown on the final plats are different than the parking areas shown on the plan approved by the Board of Appeals.

(e) That the subdivision plats do not show that all construction shall be above an elevation of one foot above the 100 year flood plain, and that it is impossible for the final plats for the townhouses to show provision for channeling the surface run-off water in the area of the proposed apartment buildings because there are not apartment buildings.

(f) That the necessary approvals have not yet been obtained for the road shown on the final plat as Westshore Drive.

6). That the final plats approved by Defendants Anderson and Harford County do not conform to the zoning ordinance of Harford County because the subdivision plats are not in substantial conformance with the conditional use

approved by the Harford County Board of Appeals in Case.No. 1849. Therefore, the action in approving the subdivision plats violates Section 4.01 and other provisions of the Harford County subdivision regulations and Section 6.01 of the zoning regulations;

7) That no preliminary plats showing the same layout as the final plats were filed and approved pursuant to Section 5.01 et seq. of the Harford County subdivision regulations;

8) That the actions of Defendants Anderson and Harford County in approving the final plats for the Westshore Development were arbitrary and capricious, in violation of the zoning ordinance and subdivision regulations of Harford County, and deprive the Plaintiffs of due process of law.

WHEREFORE, Plaintiffs pray:

1) That the action of Defendants Anderson and Harford County in approving the final plats for the Westshore Development on behalf of Harford County be declared to be invalid and of no effect;

2) That the Defendants Quick and Smith be enjoined from proceeding with any development of the property which is the subject of the final plats;

3) That the Plaintiffs have such other and further relief as the case may require;

4) And, As in duty Bound, etc.

Charles B. Keenan, Jr.
Cameron & Reed
30 Office Street
Bel Air, Maryland 21014
838-7575
Attorney for Josephine W.
Berg, Earl F. Lantz, Mary
Lantz, and the League of
Women Voters of Harford
County

Francis B. Burch
Attorney General

John C. Murphy
Assistant Attorney General
301 West Preston Street
Baltimore, Maryland 21201
383-2484
Attorney for Maryland
Department of State Planning

Josephine W. Berg
821 Edgewood Road
Edgewood, Maryland 21040

Earl F. Lantz
801 Edgewood Road
Edgewood, Maryland 21040

Mary Lantz
801 Edgewood Road
Edgewood, Maryland 21040

League of Women Voters of
Harford County
2023 Emmorton Road
Bel Air, Maryland 21014

Maryland Department of
State Planning
Room 1101
301 West Preston Street
Baltimore, Maryland 21201

• Plaintiffs

v.

Charles B. Anderson, Jr.
County Executive of Harford County
County Office Building
Bel Air, Maryland 21014

and

Harford County, a body corporate
County Office Building
Bel Air, Maryland 21014

and

Stephen E. Quick
LeRoy H. Smith
Partners T/A Marquis Associates
516 Copeland Road
Fallston, Maryland 21047

Defendants

* * * * *

COUNTER-CLAIM AND CROSS-CLAIM OF MARQUIS
ASSOCIATES IN RESPONSE TO BILL FOR DECLARATORY JUDGMENT

Stephen E. Quick and LeRoy H. Smith, trading as Marquis
Associates, (hereinafter referred to as "Marquis Associates") by
its undersigned counsel, counter-claims against the Plaintiffs,

Josephine W. Berg, Earl F. Lantz, Mary Lantz and The League of Women Voters, and cross-claims against, Harford County, Maryland and in support of such counter-claim and cross-claim aver as follows:

1. Counter-claimant and cross-claimant, Marquis Associates is a Maryland Partnership with its principal place of business at 516 Copeland Road, Fallston, Maryland 21047.

2. On or about January 22, 1973, Marquis filed an application under Zoning Ordinance No. 6 of Harford County with the Board of Appeals of Harford County, Maryland, requesting permission to construct a community development project of multi-family (condominium type) dwellings on property owned by it (the property and proposed project hereinafter referred to as the "West Shore Development"). A schematic plat was filed with the Board of Appeals together with certain front elevation concept drawings and other exhibits. The Application was heard by the Board of Appeals and a decision was rendered by that Board in a written decision dated June 11, 1973 granting a conditional use permit for the West Shore Development as a community development project. A copy of the Board's decision is attached to the Bill for Declaratory Judgment in this matter and labeled as Exhibit D to said Bill (hereinafter referred to as the "Board decision").

3. Pursuant to the provisions of the Board decision, Marquis Associates undertook the development of subdivision plats and the detailed engineering work required for such development, and as is the usual case, made certain changes in the development, none of which would require a resubmission to the Board of Appeals. Certain other refinements in the concept and the layout and design of the project were requested by the Planning and Zoning Department of Harford County and required by the topography of the land.

4. Prior to final approval and recordation of the subdivision plats attached to the Bill for Declaratory Judgment as Exhibits A, B and C, (the "Final Plats"), the Final Plats were subjected to a thorough review by the Department of Planning and Zoning. In response to a request by Mr. John E. Kelly, Acting County Attorney (a true and correct copy of which is attached hereto as Exhibit A and by this reference incorporated herein), Mr. Kenneth Green, Director of Planning wrote a memorandum of October 22, 1975 covering conditions 1, 3, 7, 9 and 10 of the Board decision and a second memorandum dated October 22, 1975 outlining the improvements in the Final Plats over the former plan. A third memorandum dated October 23, 1975 was written by Mr. Green to Mr. Kelly covering both of the foregoing and indicating compliance of the Final Plats with the conditions of the Board decision and all other applicable provisions of Harford County law. True and correct copies of each of the above specified memoranda of Mr. Green are attached hereto as Exhibits B, C, and D, respectively and by this reference are incorporated herein. An additional memorandum was written by Mr. Charles Geoly, Director of Public Works, in response to Mr. Kelly's request detailing compliance of the West Shore Development with the conditions of the Board decision. The Geoly memorandum was dated October 10, 1975. A true and correct copy of said memorandum is attached hereto as Exhibit E and by this reference is incorporated herein. The foregoing memoranda of Mr. Green and Mr. Geoly constitute conclusive findings of the administrative agencies responsible for determining compliance of the Final Plats with all provisions of the Zoning Ordinance and Subdivision Regulations including the conditions of the Board decision.

5. In addition to the Charter power vesting enforcement responsibility for all zoning matters in the Department of Planning and Zoning, the Board of Appeals, by the terms of its decision of June 11, 1973, directed Marquis Associates to file subdivision plats and thereby confirmed the responsibility of the Department of Planning and Zoning for review of the Final Plats.

6. The layout of the project and the location of buildings, streets and parking areas shown on the Final Plats is substantially in accordance with the schematic plans presented at the hearing before the Board of Appeals. All other plans and specifications on file with the County with respect to the West Shore Development are within the conditions and requirements of the Board decision.

CROSS-CLAIM DEFENDANT, HARFORD COUNTY

7. Cross-Claim Defendant, Harford County, Maryland, is a body politic and corporate, a political subdivision of the State of Maryland having its offices located at the County Office Building, 45 South Main Street, Bel Air, Maryland 21014 (the "County").

8. By memorandum dated September 4, 1975, the Harford County Council ordered Mercedes C. Samborsky, Chief Hearing Examiner of the Board of Appeals of Harford County (the "Examiner"), to conduct hearings with respect to Board of Appeals of Harford County Case No. 1849 (the West Shore Development). A true and correct copy of the memorandum directing the institution of hearings is attached hereto as Exhibit F and by this reference is incorporated herein. The hearings ordered by the Council were directed to be held in response to letters to the Council from the League of Women Voters, Planning and Zoning Committee, dated

August 8, 1975, and August 18, 1975, as reflected in a true and correct copy of the "Extract of Proceedings, Meeting of County Council", dated September 4, 1975, attached hereto as Exhibit G and by this reference incorporated herein. The County Council meetings of September 2, 1975, and September 4, 1975, at which the Council responded to the letters of the League of Women Voters and voted to direct its Examiner as aforesaid, were held without notice to Marquis Associates and without its presence.

9. At the first hearing before the Examiner, Marquis Associates, by its counsel, objected to the hearings and requested specific information as to the basis for the proceedings and the scope of the hearing. The Examiner first indicated that the hearing was an appeal by the County Council as Board of Appeals from the decision of an administrative officer. She was, at that time, unable to identify the specific actions and administrative officers which were the subject of the appeal. She stated that this would presumably become clear as the hearing proceeded. The Examiner did rule that the hearing was limited to the question of whether or not the development, as reflected on the Final Plats, complied with the conditions of the Board of Appeals. Under the Examiner's ruling, the conditions to be applied were governed strictly by the original decision of the Board of Appeals; the June 11, 1973 decision was res judicata as to the conditions applicable to the project before her. In response to its request of the County Attorney, Marquis Associates was advised by the County Attorney that he would not inform Marquis Associates of the legal basis for the hearing then being conducted pursuant to the Council directive.

10. The League of Women Voters of Harford County (hereinafter referred to as "The League") and others by their attorney, Charles B. Keenan, Jr., also appeared at the hearing. The League with others had previously filed a pleading styled: Application for Appeal, pursuant to Section 20.4 of the Zoning Ordinance, on the basis that the zoning certificate issued by the Zoning Administrator on May 24, 1974 (over a year prior to the appeal) was invalid for reasons stated in the Appeal. Marquis Associates objected to the Appeal on the basis that the Appellants therein had no standing and that the Appeal was invalid since the time established by the Zoning Ordinance for appeals from the Zoning Inspector had expired. A copy of the aforesaid Application for Appeal is attached hereto as Exhibit H and by this reference is incorporated herein. Prior to the first hearing of the Examiner, the Examiner wrote a letter dated November 14, 1975, advising Mr. Mervin Thompson, Zoning Administrator, to prosecute the appeal on the basis that "any technical errors which may exist on the application may be corrected by the applicant through this Office after the application is transmitted to the Hearing Examiner's Office". A copy of the aforesaid letter is attached hereto as Exhibit I.

11. On November 26, 1975, an additional Application for Appeal based on Section 20.4 of the Ordinance was filed by a number of civic associations together with the League and by E. Earl Lantz, Mary Lantz, his wife, and Mrs. Oscar N. Berg (as individual appellants). The second Appeal asserted that approval of the Final Plans was improper. A copy of the Second Appeal is attached hereto as Exhibit J. Marquis Associates objected to the second Application for Appeal on the basis that the plaintiffs therein had no

standing, as evidenced by the testimony produced at the hearing, and further than an appeal from subdivision plat approval did not lie before the Board of Appeals, but instead was only actionable by a petition to the Circuit Court for Harford County. In addition, Marquis Associates objected to the Appeal on the basis that even if brought under the Zoning Ordinance, it was not timely.

INDIVIDUAL COUNTER-CLAIM DEFENDANTS

12. Counter-claim Defendants, Josephine W. Berg, Earl F. Lantz and Mary Lantz are individuals residing in Harford County, Maryland, Joseph W. Berg at 821 Edgewood Road, Edgewood, Maryland 21040 and the Lantz at 801 Edgewood Road, Edgewood, Maryland 21040 (hereinafter referred to as individual Counter-claim Defendants). The individual Counter-claim Defendants filed the Appeal described in Paragraph 11 hereof knowing that such an Appeal did not properly lie before the Examiner. On information and belief, the individual Counter-claim Defendants filed such Appeal at the request of the League of Women Voters.

COUNTER-CLAIM DEFENDANT, LEAGUE OF WOMEN VOTERS

13. Counter-claim Defendant, the League of Women Voters of Harford County is a Maryland association conducting its business at 2023 Emmorton Road, Bel Air, Maryland 21014. On information and belief, Marquis Associates avers that The League in or about the third quarter of 1975 entered into a plan of action calculated to preclude any development of West Shore Development which would affect certain marsh lands in and arounds said development. The League instituted the appeals described in Paragraphs 10 and 11 hereof knowing that such Appeals were not timely and in the case of the Appeal described in Paragraph 11, knowing that the Examiner

did not have subject matter jurisdiction with respect to their claims.

COUNTER-CLAIM DEFENDANT, THE STATE PLANNING DEPARTMENT

14. Counter-claim Defendant, the State Planning Department of the State of Maryland (the "Department"), an agency of the State of Maryland which maintains its principal offices at Room 1101, 301 West Preston Street, Baltimore, Maryland 21201 and pursuant to Article 88C, Md. Cd. Ann. §1 et. seq. is an agency authorized to act on the State's behalf.

15. The Department of State Planning represented by its counsel, Mr. John Murphy, Esq. intervened in the hearings conducted by the Examiner (as previously described in paragraph 8 hereof). Mr. Murphy stated on the record on behalf of the Department that the interest of the State Planning Department was solely related to preservation of certain marsh land in and around the West Shore Development. Mr. Murphy requested that the Examiner use the opportunity of her recommendation to the County Council, as required by the Council Memorandum, to request a re-opening of the conditional use permit for the purpose of allowing the Council and the Examiner to impose conditions on the development ostensibly for preservation of said marsh land.

16. Marquis Associates believes and therefore avers that there is no legal basis for the proceedings directed by the County Council Memorandum of September 4, 1975, and that neither of the Appeals incorporated into the proceedings before the Examiner have any legal basis or validity. Marquis Associates further avers that the decisions by the Department of Planning and Zoning and the County Executive in approving the Final Plats constitute a final, binding

determination by the County that the Final Plats are in accordance with the conditions and requirements of the Board of Appeals' decision of June 11, 1973.

17. Marquis Associates further believes and avers that:

(a) Pursuant to initiatives of the League of Women Voters, as hereinafter described, the County instituted proceedings affecting the property of Marquis Associates without good cause and absent any legal justification. The County knew that any and all changes and refinements made by Marquis Associates from the schematic plan originally before the Board of Appeals were validly authorized and approved by the responsible County officials.

(b) The Individual Counter-claim Defendants have participated in various legal proceedings in order to obtain, if possible, a valid basis for standing in such proceedings for the League with knowledge that the authorized County officials had properly approved the Final Plats of Marquis Associates. Certain of the individual Counter-claim Defendants have permitted their names to be used in order to prosecute the appeals described in Paragraphs 10 and 11 hereof and to support intervention in other proceedings applicable to the West Shore Development as a subterfuge for objectives which they knew could not be enforced through the proceedings instituted by them.

(c) The actions before the County Council and the Appeals instituted by the League were instituted for the purpose of preserving and protecting marsh area in and around the West Shore Development, an objective which the League knew could not properly be obtained in the proceedings instituted by the Counter-claim and Cross-claim Defendants. It instituted its Appeals in properly alleging that changes made in West Shore Development required resubmission to the Board of Appeals when it had no interest

in the subject matter of the changes and knew, in any event, that the authorized County Officials had properly approved such changes.

(d) The State Planning Agency intervened in the hearings conducted by the Examiner for the sole purpose of attempting to have the conditional use permit of Marquis Associates improperly reopened and thereby improperly impose conditions concerning the marsh land in and around the West Shore Development knowing that such matters were not properly before the Examiner. The State Planning Department had no interest in the subject matter of the changes from the schematic plan, and knew, in any event, that the authorized County Officials had properly approved such changes.

18. Marquis Associates avers that the substantial and unjustified delays in the development of the West Shore Development occasioned by the hearings instigated by the League, and the individual Counter-claim Defendants and encouraged by the State Planning Department and improperly prosecuted by the County, have caused, and continue to cause, financial loss to them, and have caused further injury by way of legal fees and costs incurred by them in protecting their rights at such hearings..

WHEREFORE, Marquis Associates prays that a Declaratory Judgment issue against each and every of the Counter-claim Defendants and the Cross-claim Defendant to the effect that:..

A. Marquis Associates is entitled to the issuance of the Zoning Certificate for construction described in the Board of Appeals decision and related to the units shown in the Final Plans, subject only to compliance with the bonding requirements of the County Public Works Department for the construction of public improvements to be located in the project.

B. The County Council of Harford County as the Board of Appeals and as the County Council had and has no legal basis for instituting and continuing to conduct the hearings directed by its Memorandum of September 4, 1975, for purposes of determining compliance of the West Shore Development with the Board decision dated June 11, 1973, and that the Examiner and the Council have no jurisdiction in the proceedings complained on which to make any determination with respect to the West Shore Community Development project.

C. The Appeals described in Paragraphs 10 and 11 hereof are improper and of no legal effect.

D. Counter-claim and Cross-claim Defendants' real purpose in instituting the proceedings complained of, namely, a consideration of the impact of the West Shore Development on the marsh area in and around it, is not a proper basis for the re-opening of the Board decision (Case No. 1849).

Marquis Associates further prays that it be awarded its costs and attorneys' fees and that they have such other and further relief as the case may require.

Cypert O. Whitfill
P. O. Box B
48 E. Gordon Street
Bel Air, Maryland 21014
(301) 838-8664

James P. Garland

Robert B. Haldeman
Seames, Bowen & Semmes
10 Light Street
Baltimore, Maryland 21202
(301) 539-5040
Attorneys for the Developers

I HEREBY CERTIFY That, on this 5th day of May 1976, a copy of the Answer of Stephen E. Quick and LeRoy H. Smith, Partners T/A Marquis Associates, to Bill for Declaratory Judgment was mailed to Charles B. Keenan, Jr., Cameron & Reed, 30 Office Street, Bel Air, Maryland 21014, attorney for Josephine W. Berg, Earl F. Lantz, Mary Lantz and the League of Women Voters for Harford County, Francis B. Burch, Attorney General and John C. Murphy, Assistant Attorney General, 301 West Preston Street, Baltimore, Maryland 21202, attorneys for Maryland Department of State Planning and John E. Kelley, County Attorney, County Office Building, 45 S. Main Street, Bel Air, Maryland 21014.



AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 1977, by and between Stephen E. Quick and Leroy H. Smith, Co-Partners T/A Marquis Associates ("Marquis") and Josephine W. Berg, Earl F. Lantz, Mary Lantz, the League of Women Voters of Harford County (the "Preservation Group") and the Maryland Department of State Planning ("State Planning"):

WITNESSETH

WHEREAS, Marquis is the owner and developer of certain parcels and tracts of land located in Harford County, Maryland identified as follows:

The West Shore Town House Tract — that certain parcel of land shown on Exhibit 1 attached hereto and also described in certain subdivision plats recorded among the Plat Records of Harford County, Maryland at Plat Book 35, Folio 1, 2 + 3 (the "recorded plats"). Exhibit 1 is a storm water and sediment control plan consisting of three pages and dated December 22, 1976.

West Shore - Part II — that certain parcel of land shown on Exhibit 2 attached hereto, with the exclusion of the West Shore Town House Tract. West Shore Part II is intended to include both residential and commercial development and includes a portion of land designated as "Community Park and Recreation Area" and hereafter called "Natural Preservation Area".

WHEREAS, the Preservation Group and State Planning have objected to the proposals of Marquis for development of the West Shore Town House Tract and West Shore Part II; and

WHEREAS, the parties to this Agreement have participated in (1) proceedings before the Hearing Examiner of Harford County under the title of "In The Matter of Westshore Development, Board of Appeals of Harford County, Case No. 1849", pursuant to a memorandum of the Harford County Council dated September 4, 1975 and appeals filed by the parties and (2) proceedings in the Circuit Court known as Josephine W. Berg, et al. v. Charles B. Anderson, Jr., et al. (Civil Appeal Docket 2, Folio 94, Case No. 759), and Josephine W. Berg, et al. v. Charles B. Anderson, Jr., et al. (Equity No. 23125-25-79); and,

WHEREAS, this Agreement is intended to embody a settlement which the parties have reached to provide for the future development of the West Shore Town House Tract and West Shore Part II Tract.

NOW, THEREFORE, for valuable consideration, including the mutual undertakings of this Agreement, the adequacy of which is jointly and severally acknowledged, the parties agree to the following:

1. West Shore Town House Tract

A. Exhibit 1 contains the revised layout and the stormwater and sediment control measures for future development and has been approved by the State Department of Natural Resources. Marquis will conform to Exhibit 1 in the development of this tract and any deviations will be submitted to the Department of Natural Resources and State Planning for their approval. The Department of State Planning shall not unreasonably withhold approval of deviations which do not impair the purpose of preserving the Otter Creek Marsh.

B. The "Play Area" marked as "A" on Exhibit 1 shall not be used as the site of any structure as defined in the current edition of the Harford County Zoning Regulations (1957) and the recreation areas marked as "B" on Exhibit 1 shall not be the site of any building as defined in the current edition of the Harford County Zoning Regulations (1957).

C. Marquis shall prepare and submit to the Harford County Department of Planning and Zoning for its information an "Homeowners' Agreement" for the maintenance of the common open space and such agreement shall be properly integrated into the development of the community.

D. Marquis will revise the recorded plats in the Plat Records of Harford County to conform to Exhibit 1 and to the terms of this Agreement.

2. West Shore - Part II

A. The development of this tract will be consistent with the standards for development of the West Shore Town House Tract. This means that Marquis will prepare storm water and sediment control plans which will prevent any greater sediment or storm water run-off from the tract than would occur under natural conditions. The storm water and sediment control plans shall be submitted to the Department of Natural Resources for its approval consistent with these standards.

B. The "Natural Preservation Area" shall be preserved in its natural state for a minimum period of twenty years from the date of this Agreement. This means no building, structure, roadway, pier, or other alteration to the land shall be constructed by anyone in this area. Following the expiration of twenty years, the written consent of the Maryland Department of State Planning shall be required for any physical change to the "Natural Preservation Area". An agreement executed by the parties setting forth the terms of this paragraph shall be recorded among the land records of Harford County after any necessary zoning approvals have been obtained.

Dismissal of Actions; Termination

Upon execution of this Agreement, the parties shall dismiss with prejudice the two actions pending in the Circuit Court. Court costs and recording costs shall be shared one-half by Marquis and one-half by State Planning and the Preservation Group. State Planning and the Preservation Group shall file a written statement with the Harford County Hearing Examiner withdrawing all objections to the West Shore Town House Tract and the West Shore - Part II Tract. If Marquis is unable to obtain approval from Harford County for the West Shore Town House Tract as it is revised pursuant to this Agreement, then this Agreement will terminate.

Expeditious Action Required

The Department of State Planning shall act expeditiously in approving or advising on approval of plans and documents submitted to it in accordance with this Agreement.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals this _____ day of _____, 1977.

WITNESS:

STEPHEN E. QUICK

LEROY H. SMITH

JOSEPHINE W. BERG

EARL F. LANTZ

MARY LANTZ

ATTEST:

THE LEAGUE OF WOMEN VOTERS OF
HARFORD COUNTY

BY: _____

THE MARYLAND DEPARTMENT OF STATE
PLANNING

BY: _____

THE DEPARTMENT OF PLANNING AND
ZONING OF HARFORD COUNTY

BY: _____

STATE OF MARYLAND :
: To Wit:
COUNTY OF :

I HEREBY CERTIFY, that on this day of October, 1976,
before me, the undersigned officer, personally appeared STEPHEN
E. QUICK, known to me (or satisfactorily proven) to be the person
whose name is subscribed to the within instrument and acknowledged
that he executed the same for the purposes therein contained.

IN WITNESS WHEREOF I hereunto set my hand and official
seal.

Notary Public

My Commission Expires:

STATE OF MARYLAND :
: To Wit:
COUNTY OF :

I HEREBY CERTIFY, that on this day of October, 1976,
before me, the undersigned officer, personally appeared LEROY H.
SMITH, known to me (or satisfactorily proven) to be the person
whose name is subscribed to the within instrument and acknowledged
that he executed the same for the purposes therein contained.

IN WITNESS WHEREOF I hereunto set my hand and official
seal.

Notary Public

My Commission Expires:

STATE OF MARYLAND :
: To Wit:
COUNTY OF :

I HEREBY CERTIFY, that on this day of October, 1976,
before me, the undersigned officer, personally appeared JOSEPHINE
W. BERG, known to me (or satisfactorily proven) to be the person
whose name is subscribed to the within instrument and acknowledged
that she executed the same for the purposes therein contained.

IN WITNESS WHEREOF I hereunto set my hand and official
seal.

Notary Public

My Commission Expires:

100-100000

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Notary Public

y Commission Expires:

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RESTRICTIVE COVENANT

Restrictive Covenant made this day of
1977, by and between STERNE. QUICK and LEROY H. SMITH, Co-Partners,
trading as Marquis Associates ("Marquis"), and JOSEPHINE W. BERG,
EARL F. LANTZ, MARY LANTZ, the LEAGUE OF WOMEN VOTERS of Harford County
("Preservation Group"), and the MARYLAND DEPARTMENT OF STATE PLANNING
("State Planning"), witnesseth:

WHEREAS, the parties hereto have entered into a settlement
agreement attached hereto and incorporated herein as Exhibit A and
intended to be recorded herewith, and

WHEREAS, Exhibit A provides for the preservation of a
"natural preservation area" for a minimum of twenty (20) years from its
date.

NOW THEREFORE, in consideration of the premises and the
sum of One dollar (\$1.00), the receipt whereof is hereby acknowledged,
and in order to enforce the agreement, Exhibit A, Marquis hereby covenants
for itself, its successors and assigns, the "natural preservation area",
as designated on a plat attached hereto and incorporated herein as Exhibit
B, will be preserved in its natural state for a period of twenty (20)
years from the date of this covenant so that no building, structure,
roadway, pier or other alteration to the land so designated on Exhibit B
shall be constructed by anyone during such twenty (20) year period.
Marquis further covenants for itself, its successors and assigns, that
following the expiration of such twenty (20) years, written consent of
the Maryland Department of State Planning shall be required in order to
initiate and carry through any physical change to the "natural preservation
area".

IN WITNESS WHEREOF, the said Marquis has caused this restrictive

covenant to be properly executed as of the date and year first above
written.

STEPHEN E. QUICK
Co-Partner

LEROY H. SMITH
Co-Partner

Partners Trading as Marquis Associates

Appendix P

Worksheets on the Relationship of Maryland's Program and Federal Agencies

This appendix consists of worksheets describing the relationship between each federal agency with responsibility in the coastal zone, and Maryland's Coastal Zone Management Program.

The worksheets include information required by the federal regulations of the Coastal Zone Management Act (15CFR923). This information includes: a listing of the agency's statutory authorities, on-going interagency coordination efforts, the agency's primary interests in Maryland's Coastal Zone Management Program, the Coastal Zone Unit's response to those interests and proposed inter-agency coordination program implementation.

Department of Agriculture

Designated Contact: Mr. Gerald R. Calhoun
State Conservationist
Soil Conservation Service
4321 Hartwick Road, Rm. 522
College Park, Maryland 20740

Other Relevant Agencies:

Agricultural Stabilization and Conservation Service
~~Farmers~~ Home Administration
Forest Service
Economic Research Service
Statistical Reporting Service
Agricultural Research Service
Maryland Extension Service
Agricultural Experiment Station

Federal Property Excluded From Coastal Zone:

All agency properties identified in "State and Federal Land Inventory", Maryland, Department of State Planning, Technical Series, August, 1974, as updated; and as listed in Appendix A.

Statutory Authorities:

Smith - Lever Act of 1914, as amended 1962 - PL 58-1914 Chapt. 79
U.S. Statutes
Soil Conservation and Domestic Allotment and subsequent amendments (PL 74-46)
Watershed Protection and Flood Protection Act of 1954 (PL 83-566)
Food and Agricultural Act of 1962 (PL 87-703)
Resource Conservation Act (PL 89-560)

Flood Insurance Act of 1969 (PL 90-448)
Rural Development Act of 1972 (PL 92-385, 92-344 & 94-35, Title 7,
PL 92-419 - 8-30-52; 93-86 - 8-10-73)
Agriculture Act of 1956 (Title IV PL 84-540)
Agriculture and Consumer Protection Act of 1975 (PL 94-41)
Cooperative Forest Management Act (PL 81-729 Sect's. I & II and PL 92-288)
Forest Incentives Program (FIP) authorized by PL 91-524
Forest Pest Control Act and I.N.D.C. (PL 80-110)
Clark - McNary Act of 1924 - CM 2 & 4 (PL 68-270 Sect's. II & IV)

Interagency Coordination:

The Coastal Zone Unit has met several times and has had numerous phone conversations with the representatives of the Department to discuss areas of mutual interest. The Maryland Coastal Zone Unit has conducted two series of regional workshops to update Maryland Cooperative Extension Service personnel on the status of the Coastal Zone Management Program. Extension Service personnel have assisted the Coastal Zone Unit staff in the development and implementation of program elements for public participation and inter-agency coordination. The Extension Service has provided training and orientation for new employees associated with the Coastal Zone Unit's inter-agency coordination element and prepared information sheets for use in the public participation program. County Extension, Soil Conservation Service, and ASCS employees have had input into the series of regional public participation meetings sponsored by the Coastal Zone Unit. The Director of the Coastal Zone Unit represents the Maryland Department of Natural Resources on the Coordinating Committee of the Delmarva River Basins Survey. This is a cooperative River Basin Survey by the United States Department of Agriculture (USDA) under authority of Section 6 of the Watershed Protection and Flood Prevention Act, Public Law 83-566, as amended. Also, Coastal Zone Unit staff members serve on Delmarva Study working groups dealing with fish and wildlife, land use, recreation, and other study priorities. The Coastal Zone Unit also met with all USDA agencies who agreed to coordinate their inputs through the land use subcommittee of the Maryland Rural Affairs Council. The State Conservationist of the Soil Conservation Service is Chairman of the subcommittee and agreed to serve as liaison for the Program. The Soil Conservation Service also is a member of the Coastal Zone Management Supplemental Committee and designated sub groups.

Primary Agency Interests in Coastal Zone Management Program:

- Carry out USDA programs of research, education, information and technical and financial assistance so as to facilitate the rational protection, use and treatment of public and private lands and related soil, water, air, plant, and animal resources for present and future generations.
- Identify agricultural and related cultural and natural resources in the coastal zone.
- Identify prime and unique agricultural and forest soils and other agricultural soils of state and local importance.

- Control soil erosion in the coastal zone, including flood prevention measures, watershed protection and conservation projects, and resource conservation and development projects.
- Encourage and facilitate the participation of citizen groups in public decision-making and policy-making concerning issues in the coastal zone.
- Encourage and facilitate the inclusion of citizen values in public decision-making and policy-making concerning issues in the Coastal Zone.
- Encourage Soil Conservation Districts and other sponsors using USDA assistance to develop their programs and objectives in harmony with the Coastal Zone Management Program's objectives.
- Conduct soil, water, and agricultural research including developing hydrologic, chemical and sediment transport models, methods for applying sewage sludge to agricultural land, sludge composting techniques, surface mine reclamation procedures, effects of agricultural practices, and new technology to enhance environmental quality for nonagricultural purposes and sustained use.
- Assist states and non-federal land users in forest fire protection, production and distribution of tree planting stock or seed, reforestation and forest improvement and other forest and natural resource technology.
- Assist individuals, groups, and units of government to inventory, evaluate and develop plans to use and treat soils and related resources to provide for quality in natural resource base, quality in standard of living, and quality in the environment.
- Provide low interest loans to qualified persons for farm purchase, capital improvements including soil and water conservation, and farm operating capital.
- Provide low interest loans to qualified persons for rural residence purchase or improvement.
- Provide low interest loans and grants to qualified rural communities for facilities such as water, sewer, storm water, and solid waste - also loans to rural communities for other kinds of community facilities and needs.
- Provide 90 percent guarantee for loan payments on loans from other sources for starting or expanding rural businesses and industries.
- The Department of Agriculture agencies should be able to conduct their programs in a manner that is consistent with the Coastal Zone Management Program.

Permit Programs Subject to Consistency: None

Coastal Zone Unit Response:

Resource inventory studies conducted during program development can assist the Department of Agriculture in the identification of agricultural and related natural and cultural resources. These studies include the Tidal Wetlands Study, Upland Natural Areas Study, Archeological Resource Management Study, Aquatic Critical Areas Study, Bay Bottom Survey, Shoreline Erosion Mapping Study, Developmental Critical Areas Study, and Coastal Use Capability Study. The Department of Agriculture has commented on these studies at various points in their undertaking.

Maryland's Coastal Zone Management Program shares with the Department of Agriculture the goal of controlling soil erosion and related flood and runoff including protection, rational use, and treatment of soil, water, and related plant and animal resources for present and future generations. Department of Agriculture activities in support of this goal include research, education, information, and technical and financial assistance. The Coastal Zone Unit recognizes that most USDA involvement in the Coastal Zone is through assisting local Soil Conservation Districts or other local sponsors meet their objectives. The Coastal Zone Unit will review the programs and objectives of local Soil Conservation Districts and other local sponsors for consistency with the Program's objectives and will provide appropriate assistance where modifications are desirable.

The Coastal Zone Unit wishes to continue its close working relationship with the USDA during implementation of the Coastal Zone Management Program. In particular, the Coastal Zone Unit would appreciate early involvement in the design of PL-566 projects, including drainage projects, non-tidal wetlands projects, flood control efforts, housing and community facilities projects and recreation and wildlife enhancement activities, because these may generate land use conflicts and/or impact on natural resources. The Coastal Zone Unit also seeks a coordinated approach with the USDA, Soil Conservation Districts, and others in the evaluation and treatment of water quality problems, especially nonpoint sediment control and run-off problems identified through the 208 planning process.

Program Coordination During Program Implementation:

The Coastal Zone Unit intends to continue its active participation in USDA activities. It will continue to maintain liaison with the State Conservationist on matters of significance to the Coastal Zone Management Program, through bilateral contact, and on federal development and assistance projects, through the A-95 Clearinghouse. It will also establish and maintain liaison with Soil Conservation Districts, Resource Conservation and Development Boards and other local sponsors and cooperators in USDA assistance activities.

Department of Commerce

Economic Development Administration

Contact: Mr. John Curran
Planning Division
Economic Development Administration
600 Arch Street
Philadelphia, Pennsylvania 19106

Other Relevant Agencies:

Maryland Department of Economic and Community Development

Federal Property Excluded from Coastal Zone: None

Statutory Authority:

Public Works and Economic Development Act of 1965 (PL 89-136, as amended).

Interagency Coordination:

The Coastal Zone Unit has established solid staff ties with the Economic Development Administration's funded grant administration agency in Maryland, the Department of Economic and Community Development. The Director of the Coastal Zone Unit participates on the Technical Panel for Resources of the Department of Economic and Community Development's Office of Development Planning which is responsible for the State's Overall Economic Development Program. The Coastal Zone Unit has also taken an active role, through the A-95 Clearinghouse, in the review of major Economic Development Administration-funded projects in the coastal zone, including studies for a port complex at Crisfield, Maryland.

Agency Interests in the Coastal Zone Management Program:

- Priorities identified through the overall economic development program should be compatible with the Coastal Zone Management Program.
- Economic Development Administration-funded projects must not be arbitrarily constrained by the Coastal Zone Management Program's consistency review.

Permit Programs Subject to Consistency: None

Coastal Zone Unit Response:

Coastal Zone Unit participation in the State's economic development planning activities will promote compatibility between the programs. Economic Development Administration-funded projects will not be arbitrarily or capriciously excluded from the coastal zone through the consistency mechanism,

provided they are designed and executed in a manner that supports the objectives of the Coastal Zone Management Program. Among these objectives is the commitment to promote the location of major facilities in appropriate coastal areas to maintain environmental quality. One proven procedure to ensure that Economic Development Administration-funded projects will be consistent with the Coastal Zone Management Program is to encourage early Coastal Zone Unit involvement in the design of Economic Development Administration-funded projects supported through the State's Department of Economic and Community Development. The Coastal Zone Unit will continue to serve on the Technical Committee to the Overall Economic Development Program. Coordination on Economic Development Administration-funded projects will occur under the auspices of the A-95 Clearinghouse.

Maritime Administration

Contact: Mr. Thomas A. King
Eastern Region Director
Maritime Administration
26 Federal Plaza
New York City, New York 10007

Other Relevant Agencies: None

Federal Property Excluded from Coastal Zone: None

Statutory Authority:

Merchant Marine Act of 1920

Interagency Coordination:

The Coastal Zone Unit participated in an exchange of letters on maritime policy and coastal zone management with Maritime Administration staff. This exchange of letters stemmed directly from the Maritime Administration's vigorous review of the Coastal Zone Unit's draft third year program, and request for proposal for the Major Facilities Study. This written exchange of views was extremely helpful in clarifying the range of Maritime Administration's interests in the Coastal Zone Management Program.

Agency Interests in the Coastal Zone Management Program:

- The Coastal Zone Management Program must not arbitrarily and capriciously restrict deepwater terminal development.
- The Coastal Zone Management Program must not arbitrarily and capriciously restrict the operation and expansion of regular shipping ports.

- The Coastal Zone Management Program must recognize the national interest in navigation channels and harbor improvements.
- The Coastal Zone Management Program must objectively recognize environmental aspects of ships and ports.

Permit Programs Subject to Consistency: None

Coastal Zone Unit Response:

Two activities funded by the Coastal Zone Unit address issues raised by the Maritime Administration. The Coastal Zone Unit's Major Facilities Study will identify areas in the coastal zone that are uniquely suited to development, including port development. Information generated in this study will contribute to identifying critical areas for use in the State Critical Areas Program. Through this program, areas uniquely suited to port development may be set aside for such growth. The Coastal Zone Unit also has supported the preparation of a report analyzing dredging activities in Maryland waters. "Management Alternatives for Dredging and Disposal Activities in Maryland Waters" provides a blue-print for resolving a complex situation that has plagued maritime trade on the Chesapeake Bay for years. Taken together, these resource analysis and policy development efforts provide assurance that the objectives of the Coastal Zone Management Program will not arbitrarily or capriciously treat legitimate maritime interests. For example, two objectives of the Coastal Zone Management Program are:

- To promote the development and viability of port areas in Maryland in an environmentally compatible manner.
- To provide for water dependent activities in shoreland areas where appropriate and necessary and to encourage the inland siting of facilities which are not water dependent.

Coastal Zone Management Program consistency reviews relating to maritime oriented projects will consider water or land use in the interest of the people of the State of Maryland.

Program Coordination:

The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated Maritime Administration contact. Consistency review of the Maritime Administration development and assistance projects will occur under the auspices of the A-95 Clearinghouse.

National Marine Fisheries Service

Contact: Mr. William G. Gordon
Regional Director
National Marine Fisheries Service
Federal Building
14 Elm Street
Gloucester, Mass. 01930

Other Relevant Agencies: None

Federal Property Excluded from Coastal Zone:

Those properties excluded in "State and Federal Land Inventory", Maryland Department of State Planning Technical Series, August, 1974, as updated.

Statutory Authority:

The National Marine Fisheries Service (NMFS) operates under more than 50 specific authorities, a few of which impose upon NMFS a direct authority for management of resources of the coastal zone and for the overview and critique of proposed activities that would affect aquatic resources and their habitats. Of these authorities, the following eight deal most directly with NMFS's responsibilities in the coastal zone:

- Fish and Wildlife Act of 1956
- Fish and Wildlife Coordination Act of 1934, as amended
- Commercial Fisheries Research and Development Act of 1964
- Endangered Species Act of 1973
- Anadromous Fish Conservation Act of 1965
- Marine Migratory Sport Fish Act of 1959
- Marine Mammal Protection Act of 1972
- Fisheries Conservation and Management Act of 1976

Interagency Coordination:

The Coastal Zone Unit has established solid staff ties through meetings and telephone communication with the National Marine Fisheries Service's Environmental Assessment Division in Oxford, Maryland. This contact is especially useful to the Coastal Zone Unit, which is working towards comprehensive resource management, because this group provides NMFS's comments on the major projects in Maryland's coastal zone. The Coastal Zone Unit staff also maintain liaison with several of Maryland's designees on the Regional Fisheries Management Council established pursuant to the Fisheries Conservation and Management Act of 1976.

Agency Interests in the Coastal Zone Management Program:

- Conserve and manage fishery resources.
- Conserve, restore, and enhance fish and invertebrate habitats.
- Develop and maintain a healthy commercial fishing industry.
- Strengthen the contribution of marine resources to recreation and other social needs.
- Encourage the development of public and private aquaculture for selected species of fish.
- Assure the safety, quality, and identity of seafoods for U.S. consumers.

Permit Programs Subject to Consistency:

The capture and/or possession of animals protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973 requires a federal permit. Authorities under both acts are shared between the NMFS and the U.S. Fish and Wildlife Service. Generally, animals that are considered estuarine or marine aquatic are protected by NMFS.

Coastal Zone Unit Response:

There is inherent compatibility between the NMFS's goals, as stated above, and the policies of the Coastal Zone Management Act of 1972, pursuant to which the State of Maryland is developing its management program. Furthermore, studies being conducted by the Coastal Zone Unit staff will benefit the Mid Atlantic fisheries. The staff is preparing a handbook to help the public and governmental agencies understand the interdependence of the marine ecosystem, and identify aquatic areas which have unusual features of importance to one or more fisheries. The Coastal Zone Unit will support efforts by the Regional Fisheries Management Council to develop regional fisheries management concepts, and state efforts to promote regional management of fisheries stocks.

Program Coordination:

The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated NMFS contact. Consistency Review of the NMFS programs will occur under the auspices of the A-95 Clearinghouse. Ongoing program interchange will continue through established contacts in the Environmental Assessment Division.

Department of Defense

Air Force

Contact: Mr. Robert L. Wong
Chief, Environmental Planning Division
Air Force Regional Civil Engineer, Eastern Region
526 Title Building
30 Pryor St., S.W.
Atlanta, Georgia 30303

Other Relevant Agencies:

Air Force Plant No. 50
Andrews Air Force Base
Andrews Air Force Base Housing Site
Brandywine Family Housing Annex
Brandywine Globecom Annex
Brandywine Storage Annex
Fork Cup Annex
Governors Bridge Globecom Annex
Martin Airport Air National Guard
Suitland Hall Administration Annex

Federal Property Excluded from Coastal Zone:

Those properties included in "State and federal land inventory", Maryland Department of State Planning Technical Series, August, 1974, as updated; and as listed in Appendix A.

Statutory Authority: Various

Interagency Coordination:

The Air Force has helpfully provided specific information on Air Force activities in Maryland. The Air Insulation Compatible Use Zone (AICUZ) series of planning documents has been especially helpful. The concise, coherent nature of Air Force correspondence has greatly facilitated interagency communication.

Agency Interests in the Coastal Zone Management Program:

The Coastal Zone Management Program should be generally compatible with, and supportive of, air force installations' AICUZ plans.

- National defense should be identified as one of the important uses of the coastal zone.
- Federal consistency procedures adopted by the State should, to the extent possible, make use of the State Clearinghouse, to minimize duplicative paperwork.

Permit Programs Subject to Consistency: None

Coastal Zone Unit Reponse:

The goals and objectives of the AICUZ program are generally supportive of the goals and objectives of the Coastal Zone Management Program. Technical information on land uses produced by the AICUZ program can assist Maryland's local governments in nominating critical areas to the State Critical Areas Program. Geographic Areas of Particular Concern identified by the Coastal Zone Management Program will represent a subset of critical areas designated through the State Critical Areas Program. Therefore, any AICUZ - identified zones that become designated State Critical Areas, may also be eligible for designation as a Coastal Zone Management Program Geographic Area of Particular Concern. Such designation would have the sole effect of enhancing the management of an area, and would not place undue or arbitrary constraints on Air Force activities.

Awareness of the importance of national defense installations and activities located throughout the State's coastal zone is reflected in the goals and objectives, program elements and strategy for implementation of Maryland's Coastal Zone Management Program. Air Force installations and operations should not encounter problems performing in a manner that is consistent with the State's program, for two reasons:

- Air force lands are excluded from the coastal zone.
- Maryland's Coastal Zone Management Program will be implemented through existing state and local management authorities. In most cases, Air Force facilities have long-standing working relationships with the agencies administering the management authorities.

The federal consistency procedures described elsewhere use the A-95 Clearinghouse to the maximum extent practicable. All federal development and assistance projects which are to be reviewed to determine consistency with the State's Program, will be reviewed under the auspices of the A-95 Clearinghouse.

Program Coordination:

The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated Air Force contact. As stated above, consistency review of relevant development and assistance projects will occur under the auspices of the A-95 Clearinghouse.

U.S. Army Facilities

Contact: Mr. William Trieschman, Chief
Planning Division
Baltimore District
Corps of Engineers
P.O. Box 1715
Baltimore, Maryland 21203

Other Relevant Agencies:

Army Installations within or affected by Maryland's Coastal Zone:

Nike Site BA-18

Aberdeen Proving Ground (including Edgewood Arsenal plus 9 tower sites on the Eastern Shore described as Towers #8 - Worton Creek; #9 Stoops Point; #10 - Fairlee Creek; #12 - Gailles Point; #13 - between towers 12 & 14; #14 - Swain Point; #5 - Howell Point; #6 - Meeks Point; #7 - Rock Point)

Nike Site BA-30-31

Walter Reed Army Medical Center

Army Topographic Command (Defense Mapping Topographic Center)

Rockville U.S. Army Reserve Center

Gaithersburg U.S. Army Reserve Center

U.S. Military Reservation GLOBECOM Radio Receiving Station

FBIS Monitoring Station (Federal Communication Center)

Suitland Annex

Silver Hill Microwave Station

Prince Georges County Memorial U.S. Army Reserve Center

Southern Maryland U.S. Army Reserve Center

Corps of Engineers

Army General Services Administration Depot

Ft. George G. Meade

Governors Bridge GLOBECOM

Curtis Bay U.S. Army Reserve Center

Annapolis U.S. Army Reserve Center

Nike Site W-25

Baltimore District Corps of Engineers

Sheridan U.S. Army Reserve Center

Turner U.S. Army Reserve Center

Jecelin U.S. Army Reserve Center

Nike Site BA-03

Nike Site BA-79

Greenspring U.S. Army Reserve Center

Ft. Holabird

Philadelphia District Corps of Engineers

Nike Site W-44

Federal Property Excluded from Coastal Zone:

As directed by the Coastal Zone Management Act of 1972, all federal properties are excluded from the coastal zone. Those federal properties within Maryland which are excluded are listed in "State and Federal Land Inventory", Maryland Department of State Planning Technical Series, August, 1974, as updated; and as listed in Appendix A.

Statutory Authority: Various

Interagency Coordination:

There has been occasional contact with individual Army facilities for a variety of purposes, including requesting technical information, and exchanging views on coastal zone management.

Agency Interests in the Coastal Zone Management Program:

- National defense should be identified as one of the important uses of the coastal zone.

Permit Programs Subject to Consistency: None

Coastal Zone Unit Responses:

Awareness of the importance of national defense installations and activities located throughout the State's coastal zone is reflected in the goals and objectives, and strategy for implementation, of Maryland's Coastal Zone Management Program. Army installations and operations should not encounter problems performing in a manner that is consistent with the State's program, for two reasons:

- Army lands are excluded from the coastal zone.
- As described herein, Maryland's Coastal Zone Management Program will be implemented through existing state and local management authorities. In most cases, Army facilities have long-standing working relationships with the agencies administering the management authorities.

Program Coordination:

Army facilities' participation in the Coastal Zone Management Program could be improved by increasing participation of designated program contacts at major installations in the program, in addition to maintaining the central contact at the Corps of Engineers.

U.S. Army Corps of Engineers

Contact: Mr. William Trieschman, Chief
Planning Division
Baltimore District
Corps of Engineers
P.O. Box 1715
Baltimore, Maryland 21203

Other Relevant Agencies:

The Corps of Engineers works closely with many federal and state agencies.

Federal Property Excluded from Coastal Zone:

Those properties included in "State and Federal Land Inventory", Maryland Department of State Planning Technical Series, August, 1974, as updated, and as listed in Appendix A.

Statutory Authority:

Extensive, including in part:

- Rivers and Harbor Act (various)
- Outer Continental Shelf Lands Act
- Federal Water Pollution Control Act as amended
- Marine Protection, Research and Sanctuaries Act
- Flood Control Acts (various)
- National Environmental Policy Act
- Federal Power Act
- Water Resources Development Acts (various)
- Fish & Wildlife Coordination Act

Interagency Coordination:

The Coastal Zone Unit has interacted extensively with the Baltimore and Philadelphia districts of the Corps on a number of issues, including, in part, review of the design memorandum on rerouting the intra-coastal waterway, streamlining of state and federal permit processes, dredging and filling projects in Chesapeake Bay, the environmental impact of dumping slag in Baltimore harbor, and conduct of the Chesapeake Bay Study. Ties between staffs are wide-ranging.

Agency Interests in the Coastal Zone Management Program:

- In view of the extensive authority that the Corps exercises in the coastal zone, there is need for a process to resolve coastal issues which occasionally arise.
- The public interest requires that state and local permit processes be more closely coordinated. The Coastal Zone Management Program may be an appropriate vehicle to identify the means to accomplish this.
- Planning studies conducted by the Corps and by the State should continue to be closely coordinated in order to eliminate duplication of effort. In addition, programs should be complementary.

Permit Programs Subject to Consistency:

River and Harbor Act of 1899 (33 U.S.C. 401):

Section 9:

Prohibits the construction of any dam or dike across any navigable water of the United States in the absence of congressional consent and approval of the plans by the Chief of Engineers and the Secretary of the Army. Where the navigable

portions of the waterbody lie wholly within the limits of a single state the structure may be built under authority of the legislature of that state if the location and plans or any modification thereof, are approved by the Chief of Engineers and by the Secretary of the Army. The instrument of authorization is designated a permit. Section 9 also pertains to bridges and causeways but the authority of the Secretary of the Army and Chief of Engineers with respect to bridges and causeways was transferred to the Secretary of Transportation under the Department of Transportation Act on October 16, 1966 (80 Stat. 941, 49 U.S.C. 1165g(6)(A)).

Section 10:

Prohibits the unauthorized obstruction or alteration of any navigable water of the United States. The construction of any structure in or over any navigable water of the United States, the excavation from or depositing of material in such waters, or the accomplishment of any other work affecting the course, location, condition, or capacity of such waters are unlawful unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army. The instrument of authorization is designated a permit or letter of permission. The authority of the Secretary of the Army to prevent obstructions to navigation in the navigable waters of the United States extends to artificial islands and fixed structures located on the outer continental shelf, 43 U.S.C. 1333(f).

Section 11:

Authorizes the Secretary of the Army to establish harbor lines channelward of which no piers, wharves, bulkheads, or other works may be extended or deposits made without approval of the Secretary of the Army. Regulations have been promulgated relative to this authority. By policy stated in those regulations, harbor lines are guidelines only for defining the offshore limits of structures and fills insofar as they impact on navigation interests.

Section 14:

Provides that the Secretary of the Army on the recommendation of the Chief of Engineers may grant permission for the temporary occupation or use of any sea wall, bulkhead, jetty, dike, levee, wharf, pier, or other work built by the United States. This permission will be granted by an appropriate real estate instrument in accordance with existing real estate regulations.

River and Harbor Act (33 U.S.C. 565) Section 1:

Any persons or corporations desiring to improve any navigable river at their own expense and risk may do so upon the approval of the plans and specifications by the Secretary of the Army and the Chief of Engineers. Improvements constructed under this authority, which are primarily in federal project areas, remain subject to the control and supervision of the Secretary of the Army and the Chief of Engineers. The instrument of authorization is designated a permit.

Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1344), Section 404:

The Secretary of the Army, acting through the Chief of Engineers, may issue permits, after notice and opportunity for public hearings, for the discharge of dredged or fill material into the navigable waters at specified disposal sites. The selection of disposal sites will be in accordance with guidelines developed by the Administrator of the Environmental Protection Agency (EPA) in conjunction with the Secretary of the Army. Furthermore, the Administrator can prohibit or restrict the use of any defined area as a disposal site whenever he determines, after notice and opportunity for public hearings, that the discharge of such materials into such areas will have an unacceptable adverse effect on municipal water supplies, shell fish beds and fishery areas, wildlife or recreational areas.

Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413), Section 103:

Authorizes the Secretary of the Army to issue permits, after notice and opportunity for public hearings, for the transportation of dredged material for the purpose of dumping it in ocean waters.

Coastal Zone Unit Response:

Maryland's strategy for implementation of a Coastal Zone Management Program relies heavily on management through participation of all agencies that exercise authority in the coastal zone. The Corps' commitment to the concept of participation in support of the goals and objectives of the Program is extremely important to the Program's ultimate success.

One fruit of such participation is closer coordination of permit processes. A major step in the coordination of permit activities was the signing of a Memorandum of Agreement between the Maryland Department of Natural Resources and the Corps of Engineers to jointly process and evaluate non-routine (major) project applications for Department of Army permits and State permits. This agreement will stimulate Corps consistency with the State Coastal Zone Management Program. In addition, the Coastal Zone Unit's Project Evaluation Process provides the means to develop a unified set of facts on a particular project, for the consideration of all regulatory decision makers (state, local, and federal).

With regard to the Corps' interest in coordinating studies, one objective of the Coastal Zone Management Program is:

- To undertake studies and inventories to provide the most complete and accurate information base possible for all levels of government to use in management decisions and activities affecting coastal resources.

The Corps' planning activities will have the complete support of the Coastal Zone Management Program.

Program Coordination:

The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated Corps contact. After approval of the Coastal Zone Management Program, implementation of certain program elements, especially the federal consistency element, would be enhanced by designation of an additional program liaison in the Corps' operations division.

Navy

Contact: Navy Coastal Zone Management Representative for the State of Maryland:

Radm R. H. Carnahan
Commandant, Naval District Washington
Washington Navy Yard
Washington, D.C. 20374

Designated Planning Agent for Coastal Zone Management for Commandant,
Naval District Washington

Code 202
Chesapeake Division
Naval Facilities Engineering Command
Building 57
Washington Navy Yard
Washington, D.C. 20374

Other Relevant Agencies:

Naval Ordnance Station, Indian Head

Mr. Evander Gilmer
Public Works Department
Naval Ordnance Station
Indian Head, Maryland 20640

Naval Electronics Systems Test and Evaluation Detachment, St. Inigoes

Mr. Reggie Aud
Public Works Department
Naval Electronics Systems Test & Evaluation Detachment
St. Inigoes, Maryland 20670

Naval Air Test Center, Patuxent River

Mr. Leonard Kohl
Public Works Department
Naval Air Test Center
Patuxent River, Maryland 20670

Naval Academy, Annapolis
Naval Station, Annapolis
Naval Hospital, Annapolis

Mr. E. B. Miles
Public Works Department
U.S. Naval Academy
Annapolis, Maryland 21402

David W. Taylor Naval Ship Research and Development Center, Annapolis
Laboratory

Lcdr Truesdell
Public Works Officer
David W. Taylor Naval Ship Research and Development Center
Annapolis Laboratory
Annapolis, Maryland 21402

Naval Radio Transmitting Facility, Annapolis

Cdr Rio
Public Works Officer
Naval Radio Transmitting Facility
Annapolis, Maryland 21402

Naval Research Laboratory, Chesapeake Bay Division

Mr. Bob Conlin
Public Works Department
Naval Research Laboratory
Chesapeake Bay Division
Chesapeake Beach, Maryland 20732

Naval Surface Weapons Center, Solomons Facility

Mr. Richard Wegg
Public Works Department
Naval Surface Weapons Center
White Oak
Silver Spring, Maryland 20910

Marine Corps Base, Quantico
Naval Hospital, Quantico

Mr. Joe Hardisty
Public Works Department
Marine Corps Base
Quantico, Virginia 22134

Bloodsworth Island, Chinch Island

Mr. Bill Nevim
Public Works Office
Naval Amphibious Base, Norfolk
c/o Mr. Charles Carrington, Code 203
Atlantic Division
Naval Facilities Engineering Command
Norfolk, Virginia 23511

Federal Property Excluded from the Coastal Zone:

Anne Arundel County

Naval Station, Annapolis
Naval Radio Transmitting Facility, Annapolis
Naval Academy, Annapolis
Naval Academy Dairy Farm
Naval Hospital, Annapolis
David W. Taylor Naval Ship Research and Development Center,
Annapolis Laboratory

Baltimore City

Naval Reserve Training Center, Baltimore

Calvert County

Naval Surface Weapons Center, Solomons Facility
Naval Research Laboratory, North Beach
Naval Research Laboratory, Chesapeake Bay Division

Cecil County

Naval Training Center, Bainbridge (Excessed - No longer on
Navy Inventory)

Charles County

Naval Ordnance Station, Indian Head
Naval Ordnance Station, Government Railroad
Naval Surface Weapons Center, Range Station #12
NDW Housing, Waldorf
Naval Research Laboratory, Waldorf
NDW Housing, LaPlata
Naval Research Laboratory, Pomonkey
Naval Research Laboratory, Blossom Point
Naval Research Laboratory, Maryland

Dorchester County

Bloodsworth Island
Chinch Island
Sharps Island

Prince George's County

Naval Surface Weapons Center, White Oak Laboratory
Suitland Federal Center, Suitland
Naval Reserve Center, Adelphi
Naval Air Facility, Andrews Air Force Base
Naval Communications Unit, Cheltenham
Center Building, Hyattsville

St. Mary's County

Naval Electronic Systems Test and Evaluation Detachment, St. Inigoes
Naval Air Test Center, Patuxent River (including Lexington Park)
Point-No-Point Light Station
Chesapeake Theodolite Station
Bay Forest Theodolite Station
Point Lookout Light Station
Cedar Point Lighthouse
Naval Air Test Center, Government Railroad

Talbot County

Naval Research Laboratory, Tilghman Island

Statutory Authority:

Article VI Supremacy Clause of the Constitution

Interagency Coordination:

In addition to the contacts listed in the introduction, the Navy has provided specific information on Navy activities in Maryland, including a useful document entitled, "Naval District Washington Coastal Land Use Study, Part I". There has been and will continue to be substantial staff interchange and cooperation on a variety of matters throughout the program development. This procedure will ensure that the State is fully informed of the views and requirements of the Navy and Marine Corps with respect to lands, facilities, current and proposed operations, and other activities located or occurring in the State's coastal zone.

Agency Interests in the Coastal Zone Management Program:

- National defense is an essential element of the national interest and is an important use of the coastal zone. The Department of the Navy, which must locate most of its activities in the coastal zone, is a major user of coastal property, air space, and offshore lands and waters. Hence, existing and future requirements for Navy and Marine Corps operations and activities must be recognized and provided for within the framework of the plan.
- The Coastal Zone Management Plan should be generally compatible with, and supportive of, the Navy's plans for its coastal zone activities.

- Federal consistency procedures adopted by the State should, to the maximum extent possible, make use of the State Clearinghouse, to minimize duplicative paperwork.

Permit Programs Subject to Consistency:

None. Compliance with State and local requirements and procedures of purely an administrative nature (e.g., permits, licenses, fees, etc.) is not required. All Navy and Marine Corps properties fall outside the statutory definition of the coastal zone; however, in most cases, the Navy will be in full substantive compliance with the approved state plan.

Coastal Zone Unit Response:

Continuing staff coordination such as the development of Part II of the Naval District Washington Coastal Land Use Study will assure that the State's, and the Navy's, coastal planning programs are generally compatible. Points of contact at major installations have been designated by the Commandant, Naval District Washington to enhance coordination. However, Chesapeake Division, Naval Facilities Engineering Command will continue to act as liaison between the State and each installation. Awareness of the importance of national defense installations and activities located throughout the State's coastal zone is reflected in the goals and objectives, program elements, and strategy for implementation of Maryland's Coastal Zone Management Program. Navy installations and operations should not encounter problems performing in a manner which is consistent with the State's program for two reasons:

- All Navy and Marine Corps lands are excluded from the coastal zone.
- As described herein, Maryland's Coastal Zone Management Program will be implemented through existing State and local management authorities. In most cases, Navy and Marine Corps facilities have long-standing working relationships with the agencies administering the management authorities. The federal consistency procedures described elsewhere use the A-95 Clearinghouse to the maximum extent practicable. All federal development and assistance projects which are to be reviewed to determine consistency with the State's program will be reviewed under the auspices of the A-95 Clearinghouse.

Program Coordination:

The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated Navy contact. Points of contact at major installations have been designated, in addition to maintaining the central contact at the Headquarters level. This facilitates the Navy's direct involvement at local and state levels on specific matters affecting the coastal zone.

Energy Research and Development Administration

Contact: Dr. James L. Liverman
Assistant Administrator for Environment and Safety
Energy Research and Development Administration
Washington, D.C. 20545

Other Relevant Agencies: None

Federal Property Excluded from Coastal Zone: None

Statutory Authority:

P.L. 93-438

Interagency Coordination:

The Energy Research and Development Administration has conscientiously reviewed and commented on all the material that has been forwarded to the agency.

Agency Interests in the Coastal Zone Management Program:

- Energy Research and Development Administration must consider the various constraints placed by the Coastal Zone Management Program on coastal zone development, and, hence, on Energy Research and Development Administration's consideration of energy technology development in the coastal zone.

Coastal Zone Unit Response:

The Coastal Zone Unit shares Energy Research and Development Administration's interest in, and commitment to, the nation's energy future. The national interest in the nation's energy future is reflected throughout the design, program elements, and strategy for implementation, of the Coastal Zone Management Program. For example, the Coastal Zone Unit's Developmental Critical Areas Study will identify areas in the coastal zone that are uniquely suited to development, including energy facility development.

Program Coordination:

The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated Energy Research and Development Administration contact.

Environmental Protection Agency

Contact: Robert Blanco
Water Programs Division
Environmental Protection Agency
Curtis Building, 2nd Floor
6th & Walnut Streets
Philadelphia, Pennsylvania 19106

Other Revelant Agencies:

Water Resources Administration
Department of Health and Mental Hygiene
Department of State Planning
Baltimore Regional Planning Council

Federal Property Excluded from Coastal Zone: None

Statutory Authority:

Federal Water Pollution Control Act
Clean Air Act
Safe Drinking Water Act
Solid Waste Disposal Act

Interagency Coordination:

In addition to the contacts listed in the introduction, the Coastal Zone Unit has established staff ties through participation in technical studies. Meetings and telephone communications on a variety of matters have also taken place. Furthermore, the Coastal Zone Unit interacts frequently with the Environmental Protection Agency-funded planning programs (303,208,201,106) at the state level. Generally, the water quality planning offices in Maryland view the Coastal Zone Management Program as offering a means to resolve tough water quality problems (stemming from conflicts of use) which may be identified by the water quality planning programs.

Agency Interests in the Coastal Zone Management Program:

- Nothing in the Program shall in any way affect any requirement established by the Federal Water Pollution Control Act or the Clean Air Act, or requirements established by any unit of government pursuant to either of those Acts. Such requirements shall be incorporated by reference in the Coastal Zone Management Program.
- Special efforts should be made to coordinate basin and areawide waste treatment management programs in the coastal zone.

Permit Programs Subject to Consistency:

All Environmental Protection Agency permit programs that have not been delegated to the State of Maryland for administration are subject to the federal consistency requirement. This includes:

- Safe Drinking Water Act, Sections 1421(c)(1), and 1424(b)(2).
- National Pollutant Discharge Elimination System permits for federal installations.
- New source approvals for air discharges, pursuant to:
 - a. Prevention of Significant Air Quality Deterioration regulations (FR vol. 39, number 235: December 5, 1974)
 - b. New Source Review in Non-Attainment Areas
- New source approvals for air sources emitting hazardous air pollutants (National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61). Present list of hazardous air pollutants: mercury, beryllium, asbestos, and vinyl chloride.
- Permits for landfills, pursuant to the Solid Waste Disposal Act of 1976.
- Federal Water Pollution Control Act: Section 405, sludge runoff; section 118, aquaculture.

-Environmental Protection Agency permit programs which have been delegated to the State of Maryland for administration, and therefore are not subject to the federal consistency requirement include:

- Federal Water Pollution Control Act: Sec. 402, National Pollutant Discharge Elimination System;
- Clean Air Act: New source construction/operation permits.

The administration of Marine Protection, Research and Sanctuaries Act (PL92-532) is not subject to the federal consistency requirement because the Act's jurisdiction does not extend to within the territorial sea, whose 3-mile limit is the seaward boundary of the coastal zone.

Coastal Zone Unit Response:

Documentation attached to the program certifies that requirements established by any unit of government pursuant to the Federal Water Pollution Control Act or the Clean Air Act are incorporated by reference as an integral element of the Program.

During program development, efforts to coordinate with the Environmental Protection Agency-funded programs within the State have been extensive. Coastal Zone Unit staff has met on numerous occasions with representatives of the State's Water Resources Administration to discuss compatibility of programs, especially the 303 River Basin, and 208 areawide water quality planning programs.

It has been agreed within the State that, to the maximum extent practicable, the State's 208 planning program will take advantage of, and, wherever possible incorporate, resource studies conducted during Coastal Zone Management Program development. The Coastal Zone Unit also participates in the Interagency Coordinating Council, which provides technical guidance to the State's River Basin planning program.

In order to augment its participation in the Coastal Zone Management Program, the State's Environmental Health Administration has recently entered into an agreement with the Coastal Zone Unit to establish an interagency liaison position. The liaison position shall facilitate the flow of technical information between the Environmental Health Administration, Coastal Zone Unit, and other participants in the Coastal Zone Management Program.

Program Coordination:

All Environmental Protection Agency-funded units of government in Maryland are intended to be participants in the Coastal Zone Management Program. The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated contact. Although Section 307(f) of the Coastal Zone Management Act exempts certain Environmental Protection Agency-administered permits from participation in the State's consistency program, all other development, assistance, and permit programs must comply with the State's consistency requirements.

Environmental Protection Agency's Chesapeake Bay Study Team could benefit from a closer working relationship with the Coastal Zone Unit, because one objective of the Coastal Zone Unit is "to promote standardization techniques and compatability of federal, state and academic efforts in the State's coastal areas".

Department of Housing and Urban Development

Contact: Mr. Alfred Marks
Asst. Regional Administrator for Community
Planning and Development
Department of Housing and Urban Development
Curtis Building, 6th & Walnut Street
Philadelphia, Pennsylvania 19106

Other Relevant Agencies:

Maryland Department of State Planning
Baltimore Area Regional Planning Council

Federal Property Excluded from Coastal Zone:

All agency's properties identified in "State and Federal Land Inventory", Maryland Department of State Planning, Technical Series, August, 1974, as updated; and as listed in Appendix A.

Statutory Authority:

National Flood Insurance Act
Housing and Community Development Act

Interagency Coordination:

The Department of Housing and Urban Development has contributed financial support, through the Baltimore Area Regional Planning Council, to a joint Coastal Zone Unit-Regional Planning Council Land Use study of the urban coastal zone in the Baltimore Area. This study has been supportive of the Department of Housing and Urban Development/Office of Coastal Zone Management Joint Agreement on coastal zone planning, dated February 19, 1975.

Agency Interests in the Coastal Zone Management Program:

- The State's Coastal Zone Management Program must give adequate attention to flood and related hazard areas especially those areas identified by the Flood Insurance Administration. No identified hazard area shall receive federal financial assistance, including mortgage loans from federally-regulated lenders, unless the community in which the area is located is participating in the federal flood insurance program. To participate in this program, a community must adopt and submit to the Administrator as part of its application, flood plain management regulations designed to reduce or avoid future flood, mudslide (i.e., mudflow) or flood-related erosion damages.
- The Coastal Zone Unit should work closely with the Department of State Planning toward the establishment of joint public and governmental involvement mechanisms.

- The Coastal Zone Management Program should be compatible with, and supportive of the Department of Housing and Urban Development-funded comprehensive planning efforts in the State.

Permit Programs Subject to Consistency: None

Coastal Zone Unit Response:

The Maryland Coastal Zone Unit works closely with flood and hazard programs in the State. During Program development, coastal hazard areas were identified, based on information originating within the Flood Insurance Administration. In order to assist local communities in participating in the federal flood insurance program, the State maintains a Hydrologic Services Section within the Department of Natural Resources. The Hydrologic Services Section also administers the State's Flood Control and Watershed Management Act, which requires counties to develop comprehensive flood control and watershed management plans. Because this Act is one implementing authority of the Coastal Zone Management Program, the Coastal Zone Unit is assisting the Hydrologic Services Section in its implementation.

The two most significant implementing authorities of the Coastal Zone Management Program are the State Critical Areas Program, and the State Intervention program (these authorities are described in Chapter II and Appendices N and O). Both of these authorities are administered by the Department of State Planning. For this and many other reasons the Coastal Zone Unit has sought the closest possible working relationship with the Department of State Planning throughout program development. In essence, although all agencies are partners in the Coastal Zone Management Program, the Department of State Planning has also participated as an equal partner during program development. In support of this relationship, the Coastal Zone Unit funds a full time program liaison position within the Department of State Planning. Furthermore, a memorandum of understanding between the Department of State Planning and the Department of Natural Resources is in the final stage of negotiation. The memorandum details program relationships between the Department of State Planning and the Coastal Zone Management Program in the following areas: goals and objectives, intervention authority, critical areas program, and regional and technical assistance programs.

Program Coordination:

The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated Department of Housing and Urban Development contact. The Department of Housing and Urban Development participation in the Coastal Zone Management Program could be increased by designating technical contacts within both the comprehensive planning and flood insurance divisions of the regional office.

Federal Energy Administration

Contact: Mr. William Kaplan
Director, Energy Conservation
and Resource Development
Federal Energy Administration, Region III
1421 Cherry Street
Philadelphia, Pennsylvania 19102

Other Relevant State Agencies:

Maryland Energy Policy Office
Maryland Power Plant Siting Program

Federal Property Excluded from Coastal Zone:

The Federal Energy Administration does not presently own or otherwise exercise control over any property other than office space located in Maryland's coastal zone.

Statutory Authority:

Under the statutory authority of the Coastal Zone Management Act of 1972 (PL 92-583, as amended in 1976 by PL 94-370), FEA has been given the important role of assisting the Secretary of Commerce through cooperation, consultation, and by reviewing and commenting on each state's management plan. The purpose of the 1975 Amendments is not only to improve coastal zone management, but also to further the national energy objective of attaining a greater degree of energy self-sufficiency. Under the provisions of the Coastal Zone Management Act, together with implementing regulations adopted by the Department of Commerce, the FEA, along with other relevant federal agencies, will serve as a commentator to assure that management programs formulated by the coastal states provide for adequate consideration of the national interests in energy facility siting.

The Act's 1976 amendment has added the additional requirement for each coastal state to include in its management program development, a planning process for energy facilities likely to be located in the coastal zone. Federal regulations specify that relevant federal agencies, under which the FEA has been specifically listed, be provided by the coastal state an opportunity for full participation at all appropriate stages of management program development. Continuing cooperation and consultation between the FEA and the Coastal Zone Unit is vital for the development of an energy facility planning process consistent with the policies of the Act.

Before approving a management program, the Secretary of Commerce or his designee, the Administrator of the National Oceanic and Atmospheric Administration shall find, along with eight other criteria, that the program provides for adequate consideration of the national interest involved in the planning for and siting of energy facilities. Federal regulations furnish the FEA, along with other relevant federal agencies, an opportunity to comment on both the state program and/or the environmental impact statement pertaining to the state program. As supervisor of national energy policy, the FEA will have a special interest in a meticulous review of the energy facility planning and siting provisions of a coastal state's management plan.

In carrying out his functions and responsibilities under the Coastal Zone Management Act, the Secretary of Commerce or the Administrator of NOAA will consult with the FEA. The Secretary or his designee will not approve a state's management program unless the views of the FEA, together with other relevant federal agencies, have been adequately considered. Should a serious disagreement between the FEA and a coastal state occur in development or approval of a management program, then pursuant to the Act and federal regulations, the Secretary will seek to mediate the differences involved in such disagreement.

New federal regulations are being developed and promulgated to implement the provisions of the 1976 Amendment. The Federal Energy Administration may participate in such rulemaking in order to assure that the provisions of the Act regarding national energy interest are carried out. Such new rules may impose new requirements and responsibilities on a coastal state for developing, seeking approval, and administering management program.

In addition, FEA has specific statutory authority to carry out energy-related activities which may impact upon the coastal zone, including, but not limited to the following:

1. The storage of strategic reserves of petroleum which may involve the acquisition of land and facilities (Title I, Part B of the Energy Policy and Conservation Act of 1975, P.L. 94-163, December 22, 1975, as amended by P.L. 94-385 August 14, 1976);
2. The issuance of construction orders to require that power-plants or other major fuel burning installations have the capability to burn coal (Section 2 of the Energy Supply and Environmental Coordination Act of 1974, P.L. 93-319, June 22, 1974, as amended by P.L. 94-163, December 22, 1975);
3. The issuance of prohibition orders against the burning of fossil fuels to a power plant or major fuel burning installation which is capable of burning coal (Section 2 of the Energy Supply and Environmental Coordination Act as cited above);
4. The allocation of crude oil and petroleum derived products, including naphthas (Section 4 of the Emergency Petroleum Allocation Act of 1973, P.L. 93-159, November 27, 1973, as amended by P.L. 93-511, P.L. 94-99, P.L. 94-133, P.L. 94-163, and P.L. 94-385); and
5. The disbursement of federal grants to designated state agencies for carrying out energy conservation activities (Title V, Part C of the Energy Policy and Conservation Act as cited above).

Federal-State Coordination:

The Coastal Zone Unit has had considerable constructive staff interchanges with FEA officials. This interchange has been in the form of letters, meetings, and informal discussions. The Maryland Coastal Zone Unit has also participated under the auspices of the Mid-Atlantic Governor's Coastal Resources Council in a cooperative agreement between the FEA and the State of Delaware. Under this cooperative agreement, the Coastal Zone Unit inventoried and analyzed state and local powers to manage Onshore Impacts of Offshore Development. This work complemented work already undertaken on the Authorities element of the Coastal Zone Management Program. The Federal Energy Administration also sponsored a Regional Pilot Study in energy facility siting which involved the participation of members of the Maryland Coastal Zone Unit. This work served as an additional building block of experience in energy siting issues and supplemented efforts that are underway in the State.

Agency Interests in the Coastal Zone Management Program:

- State programs must directly recognize the national interest in energy facility siting and development and the importance of coastal locations for the siting of water - and coastal - dependent energy facilities, including Outer Continental Shelf - related facilities, liquified natural gas facilities, electric generating facilities, deep water ports, and petroleum refineries.
- The Federal Energy Administration hopes that attention will be given to the identification of areas particularly suitable for development, as well as to those which are most suitable for conservation, preservation, or recreation.
- Areas which are identified through the planning process as areas of exceptional value, opportunity, or significance should be designated as "areas of particular concern". Areas particularly well suited for import or export of energy resources, for onshore support of Outer Continental Shelf oil and gas development, for deep water ports and for other energy facilities should be so designated.
- The State should develop a method to analyze state needs for energy facilities which can be met most effectively and efficiently in the coastal zone. Criteria for siting energy facilities should be developed and suitable sites identified. Such criteria should include recognition of an interstate and national interest in siting certain facilities. In drawing up siting criteria, the State could identify:
 - a. Those facilities which are:
 - i. absolutely coastal dependent (LNG facility docks, petroleum loading and off loading prots, OCS-related facilities utilizing water transport, OCS pipelines).
 - ii. peripherally dependent (nuclear generating plant, refineries, gas processing plant, tank farms)
 - iii. not at all dependent (mine mouth generating station, sub-stations).

- b. Those facilities which serve as stimuli for long-term growth and those which do not.
- The Coastal Zone Management Program's procedures for federal consistency should employ the A-95 Clearinghouse to the maximum extent practicable. Activities involving federal development and assistance projects are required to be reviewed under the auspices of the A-95 Clearinghouse. In addition, during the course of granting federal licenses and permits for development projects and activities, agencies are urged to consult the Clearinghouse and to seek the evaluation of potential impacts. The Federal Energy Administration does not presently grant permits or licenses but conducts other activities which are not specifically covered by the A-95 regulation.

The Federal Energy Administration has the authority to prohibit the burning of oil or gas in certain electric generating stations and major fuel burning installations. Issuance of these prohibition orders may in some cases be considered a major federal action significantly affecting the environment. When this occurs, an environmental impact statement is prepared and external and internal review is undertaken. The Federal Energy Administration perceives the importance of early consultation among the different levels of government and the different agencies with each level. It is therefore anticipated that FEA will consult with the Clearinghouse at the preparation or review stage of the draft environmental impact statement.

Another activity not specifically addressed in the A-95 regulations is the allocation of petroleum products. The Federal Energy Administration allocates naphtha which may be used as input to the production of synthetic natural gas. This allocation is in some cases considered a major federal action requiring an environmental impact statement. Similar to the issuance of prohibition orders, it is anticipated that the Clearinghouse will be consulted in the preparation or review stages of the draft Environmental Impact Statement.

Permit Programs Subject to Consistency: None

Current activities conducted by the FEA which appear to fall under the consistency provision include:

- Allocation of naphtha for the production of synthetic natural gas.
- Prohibition and construction orders as part of the Energy Supply and Environmental Coordination Act (coal conversion).
- Development projects as part of the Strategic Petroleum Storage Program.
- Federal assistance activities awarded under State Energy Conservation Program.

Coastal Zone Unit Response:

Awareness of the importance of the national interest in energy development, and energy facility siting is reflected in the goals and objectives, program elements, and strategy for implementation of Maryland's Coastal Zone Management Program.

One goal of the Coastal Zone Management Program is to promote the location of major facilities in appropriate coastal areas to maintain environmental quality. Three objectives in support of this goal are:

- To provide for water dependent activities in shoreland areas where appropriate and necessary and to encourage the inland siting of facilities which are not water dependent.
- To encourage the location of new coastal facilities, both industrial and residential, in existing developed areas capable of accommodating additional development, in areas suitable and planned for redevelopment, or in areas determined by scientific study to be environmentally and economically suitable for development.
- To promote the development and viability of port areas in Maryland in an environmentally compatible manner.

An important program element of the Coastal Zone Management Program seeks to resolve conflicts of use in developmental critical areas, including areas suitable for energy facility development. Management objectives for this element seek to: resolve conflicts concerning the location of major facilities in Maryland's Coastal Zone; reduce developmental pressures on high value coastal resources; and provide for the management of areas where major facility, including energy facility, activities are most suitable with environmental and economic policies of the State. In order to develop resource and impact information, siting methodologies, and policy alternatives in support of this program element, the Coastal Zone Unit is conducting a study of major facility siting in the State, which is discussed in Appendix D. Major facilities are defined to include, in part, Outer Continental Shelf related facilities, refinery and storage facilities, liquified (nuclear) natural gas facilities, electric power plants, ports, and industrial parks. Major work tasks include:

- a. A regional screen to include extensive factor mapping, to identify areas, by facility type, that are most likely to contain sites suitable for the construction and operation of major facilities.
- b. Development of a method for the State to identify and resolve conflicts associated with major facility siting, construction, and operation.

- c. Development of a system enabling state and local governments to assess the economic, fiscal, and social impacts of major facility siting, construction, and operation.
- d. Development of an environmental site assessment method capable of identifying, measuring, and evaluating the environmental impact of major facility proposals on a site specific basis.

The Federal Energy Administration had the opportunity to review and comment on the program element and the study at several stages in its formation and progress.

Areas identified as suitable for major facility development by the Major Facility Study may be suggested to local governments for inclusion in their recommendations to the State's Critical Areas Program. When recommended, these sites may then be designated by the Department of State Planning as areas of critical State concern. Those areas of critical State concern that are located in the coastal zone are then termed Geographic Areas of Particular Concern in the Coastal Zone Management Program.

Maryland's state authorities in energy facility siting, including the Power Plant Siting Act, and the Coastal Facilities Review Act, are nationally recognized as progressive, innovative approaches to facility siting. Because the Coastal Zone Unit's strategy for implementation of the Coastal Zone Management Program relies heavily on the participation of all federal, state, and local agencies exercising management authority in the coastal zone, these two Acts will form the basis of Maryland's management approach to energy research, development, and facility siting.

The federal consistency procedures described elsewhere use the A-95 Clearinghouse to the maximum extent practicable. All federal development and assistance projects which are to be reviewed under the auspices of the A-95 Clearinghouse.

Federal Power Commission

Contact: Mr. James D. Hebson
Acting Regional Engineer
Federal Power Commission
26 Federal Plaza
New York City, New York 10007

Other Relevant Agencies: None

Federal Property Excluded from Coastal Zone: None

Statutory Authority:

Federal Power Act
Natural Gas Act

Interagency Coordination:

The Coastal Zone Unit has had the opportunity to review the Federal Power Commission, docket No. RM76-38, "Certification of Compliance with Approved State's Coastal Zone Management Program; and Federal Power Commission docket No. RM76-13, "The Need for Site Selection and Facility Operation Criteria for Liquified Natural Gas Importation and Storage Terminals".

Agency Interests in the Coastal Zone Management Program:

- The State's program should be able to evaluate the impact of energy facilities on the Coastal Zone.
- The State's program should include a methodology for evaluating energy needs and acceptability from an economic and environmental basis in accordance with policies established in state law.
- The State's program must preclude the possibility of arbitrary and capricious action regarding the siting of energy facilities.

Permit Programs Subject to Consistency:

Ordering interconnection of electric transmission facilities under Section 202 of the Federal Power Act.

Authorizing import or export of natural gas under Section 3 of the Natural Gas Act.

Certification under Section 7 of the Natural Gas Act.

Coastal Zone Unit Response:

Awareness of the importance of the national interest in energy development, and energy facility siting is reflected in the goals and objectives, program elements, and strategy for implementation of Maryland's Coastal Zone Management Program.

One goal of the Coastal Zone Management Program is to promote the location of major facilities, including energy facilities, in appropriate coastal areas to maintain environmental quality. Three objectives in support of this goal are:

- To provide for water dependent activities in shoreland areas where appropriate and necessary and to encourage the inland siting of facilities which are not water dependent.
- To encourage the location of new coastal facilities, both industrial and residential, in existing developed areas capable of accommodating additional development, in areas suitable and planned for redevelopment, or in areas determined by scientific study to be environmentally and economically suitable for development.
- To promote the development and viability of port areas in Maryland in an environmentally compatible manner.

An important program element of the Coastal Zone Management Program seeks to resolve conflicts of use in developmental critical areas, including areas suitable for energy facility development. Management objectives for this element seek to: resolve conflicts concerning the location of major facilities in Maryland's coastal zone; reduce developmental pressures on high value coastal resources; and provide for the management of areas where major facility, including energy facility, activities are most suitable with environmental and economic policies of the State. In order to develop resource and impact information, siting methodologies, and policy alternatives in support of this program element, the Coastal Zone Unit is conducting a study of major facility siting in the State. Major facilities are defined to include, in part, Outer Continental Shelf related facilities, refinery and storage facilities, Liquefied Natural Gas facilities, electric power plants, ports, and industrial parks. Major work tasks include:

- a. A regional screen to include extensive factor mapping, to identify areas, by facility type, that are most likely to contain sites suitable for the construction and operation of major facilities.
- b. Development of a method for the State to identify and resolve conflicts associated with major facility siting, construction, and operation.
- c. Development of a system enabling state and local governments to assess the economic, fiscal and social impacts of major facility siting, construction, and operation.
- d. Development of an environmental site assessment method capable of identifying, measuring, and evaluating the environmental impact of major facility proposals on a site specific basis.

The Federal Power Commission has had the opportunity to review and comment on the program element and the study at several stages in its formation and progress.

Maryland's state authorities in energy facility siting, including the Power Plant Siting Act, and the Coastal Facilities Review Act, are nationally recognized as progressive, innovative approaches to facility siting. Because the Coastal Zone Unit's strategy for implementation of the Coastal Zone Management Program relies heavily on the participation of all federal, state, and local agencies exercising management authority in the coastal zone, these two Acts will form the cornerstone of Maryland's management approach to energy research development and facility siting, and preclude arbitrary and capricious action on the siting of any energy facility.

Program Coordination:

The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated Federal Power Commission contact. Early in program development, the Federal Power Commission furnished preliminary guidelines describing their interest in the Coastal Zone Management. As hoped, revised guidelines for program interaction have been prepared. These new guidelines will enhance program coordination.

General Services Administration

Contact: Mr. Dale A. Patterson
Manager, Baltimore Area
General Services Administration, Region 3
G.H. Fallon Federal Building
Baltimore, Maryland 21201

Other Relevant Agencies: None

Federal Property Excluded from Coastal Zone:

These properties included in "State and Federal Land Inventory", Maryland Department of State Planning Technical Series, August, 1974, as updated; and as listed in Appendix A.

Statutory Authority:

Federal Property and Administrative Services Act of 1949

Interagency Coordination:

The General Services Administration has limited its participation in program development to official contacts.

Agency Interests in the Coastal Zone Management Program:

- General Services Administration seeks a definition of the relationship between exclusion of federal lands and federal consistency as it applies to surplus federal properties, in the process of changing ownership.

Permit Programs Subject to Consistency: None

Coastal Zone Unit Response:

All federal lands, including surplus lands, are excluded from the State's coastal zone. After title on surplus lands is transferred to a non-federal owner, those lands will be included in the State's coastal zone. The federal consistency requirement described elsewhere applies to all federal development, assistance and permit activities in the coastal zone, and to those activities on federal lands which have a significant impact on the State's coastal zone. Since disposal of federal lands into non-federal lands is a development action that will have a substantive impact on the State's coastal zone (by increasing the areal extent of the zone) surplus land disposal action will be subject to the federal consistency requirement.

Program Coordination:

Determination of federal consistency on surplus lands disposal actions will occur under the auspices of the A-95 State Clearinghouse. The Coastal Zone Unit will continue to bring matters of program concern to the attention of the designated program contact.

Department of Health, Education and Welfare

Contact: Mr. Joseph Yarbrough
Asst. Reg. Director for Intergovernmental
Affairs
Department of Health, Education and Welfare
3535 Market Street
Philadelphia, Pennsylvania 19101

Other Relevant Agencies:

Food and Drug Administration

Federal Property Excluded from Coastal Zone:

Those properties included in "State and Federal Land Inventory", Maryland Department of State Planning Technical Series, August, 1974, as updated; and as listed in Appendix A.

Statutory Authority: Various

Interagency Coordination:

The Department of Health, Education and Welfare has limited its participation in program development to official contacts.

Agency Interests in the Coastal Zone Management Program:

- Department of Health, Education and Welfare communications have not identified specific areas of interest.

Permit Programs Subject to Consistency: None(?)

Coastal Zone Unit Response:

Although Department of Health, Education and Welfare has not identified specific areas of interest in the Coastal Zone Management Program, one obvious area of interface is the Food and Drug Administration's shellfish management activities. In support of its shellfish management authority the Food and Drug Administration conducts planning studies and performs resource inventories. One objective of the Coastal Zone Management Program is to promote standardization of techniques and compatibility of federal, state and academic research efforts in the State's coastal areas. Continuing exchange of information between the Food and Drug Administration Shellfish Program and the Coastal Zone Management Program would contribute toward achievement of this objective.

Program Coordination:

The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated Department of Health, Education and Welfare contact. Communication between the Food and Drug Administration Shellfish Program and the Coastal Zone Management Program could be increased through designation of a technical liaison, as needed.

Department of Interior

Contact: Roger S. Babb
Special Assistant to the Secretary
Department of Interior
J.F.K. Building
Boston, Mass. 02203

Other Relevant Agencies:

Bureau of Land Management
Bureau of Mines
Bureau of Outdoor Recreation
Fish and Wildlife Service
Geological Survey
National Park Service

Federal Property Excluded from Coastal Zone:

Those properties included in "State and Federal Land Inventory", Maryland Department of State Planning Technical Services, August, 1974, as updated; and as listed in Appendix A.

Statutory Authority: Extensive

Interagency Coordination:

The Coastal Zone Unit has had extensive interaction with specific Department of Interior agencies, including the Bureau of Land Management, Bureau of Mines, Fish and Wildlife Service, Geological Survey, and National Park Service, on a variety of issues, such as Outer Continental Shelf oil and gas leasing, and the possibility of designating Assateague Island as a marine sanctuary. One especially helpful program coordination technique was the Coastal Zone Unit's participation in a morning-long meeting of the Special Assistant to the Secretary's Field Committee on Coastal Zone Management. This group of agency designees provided much information on their interests in the Coastal Zone Management Program.

Agency Interests in the Coastal Zone Management Program:

- The Coastal Zone Management Program should not adversely affect Departmental interests.
- The Coastal Zone Management Program should include a process for designating areas of particular concern which are of interest to the Department.
- National interests of concern to the Department should be considered in the State Program.

Permit Programs Subject to Consistency:

The Bureau of Land Management and Geological Survey permit, license, and approval activities related to Outer Continental Shelf oil and gas developments.

The Fish and Wildlife Service endangered species permit actions.

Coastal Zone Unit Response:

The Coastal Zone Unit's strategy for implementation of the Coastal Zone Management Program relies on management through participation of all agencies with management authority in the coastal zone. Because the Department of Interior has extensive authority in the Coastal Zone, the Coastal Zone Unit hopes the Department of Interior will exercise its authority in a manner that supports the goals and objectives of the program. Since representatives of the various bureaus of the Department of Interior have had extensive interaction with the Coastal Zone Unit throughout program development, Department of Interior's interests are, whenever possible, reflected in the goals and objectives of the Program.

Throughout program development, the Coastal Zone Unit has conducted inventories of coastal resources. Technical information resulting from these inventories can assist local governments in recommending critical areas to the State Critical Areas Program. Any local recommendations for State Critical Areas must be reviewed by the State before they are designated State Critical Areas by the Department of State Planning. Areas will be identified by the Coastal Zone Unit and suggested to local governments for recommendation as areas of critical State concern. The designated State Critical Areas in the Coastal Zone are termed Geographic Areas of Particular Concern in the Coastal Zone Management Program.

Awareness of the importance of various phases of the national interest in the coastal zone is reflected in the goals and objectives, program elements, and strategy for implementation of Maryland's Coastal Zone Management Program.

Program Coordination:

The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated Department of Interior contact, and the Bureaus, as appropriate.

Bureau of Land Management

Contact: Ms. Abigail Miller
Bureau of Land Management, Outer
Continental Shelf Office
6 World Trade Center, Suite 600D
New York City, New York 10048

Agency Interests:

- Of primary concern are specific planning goals which would affect the location of facilities necessary for Outer Continental Shelf development.
- The Bureau of Land Management is interested in the process by which the Coastal Zone Management Program will be implemented.

- The Bureau of Land Management is also interested in participating in any continuing mechanism for program coordination which may be established.

Coastal Zone Unit Response:

One goal of the Program will be to promote the location of major facilities in appropriate coastal areas to maintain environmental quality.

Objectives in support of this goal are: to encourage the location of water dependent activities in shoreland areas where appropriate and necessary, and to encourage the inland siting of facilities which are not water dependent; to encourage the location of new coastal facilities, both industrial and residential, in existing developed areas capable of accommodating additional development, in areas suitable and planned for redevelopment, or in areas determined by scientific study to be environmentally and economically suitable for development; and to promote the development and viability of port areas in Maryland in an environmentally compatible manner.

To provide technical information for this program area, the Coastal Zone Unit has undertaken a Major Facilities Study. This study will: screen the coastal zone to identify sites that are suitable for major facility development, develop a method to identify and resolve conflicts associated with major facility siting, construction, and operation; develop and test a system enabling state and local governments to assess the economic, fiscal, and social impacts of major facility siting, construction and operation; develop an environmental site assessment method capable of identifying, measuring and evaluating the environmental impact of major facility proposals on a site-specific basis.

As described earlier, the Coastal Zone Unit's strategy for implementation of the Coastal Zone Management Program relies heavily on management through participation of all agencies with management authority in the coastal zone. Accordingly, the Coastal Zone Management Program will be implemented through existing authorities. These authorities are described elsewhere. The Coastal Zone Unit does not see the need for additional regulatory authority to implement the Program.

Staff coordination with the Bureau of Land Management has been extensive throughout program development. Additional coordination mechanisms do not appear necessary at this time.

Bureau of Mines

Contact: Mr. Joe Sutton
Bureau of Mines
Room 9008 Columbia Plaza
Washington, D.C. 20241

Agency Interests in the Coastal Zone Management Program:

- The Coastal Zone Management Program should allow for the siting of facilities necessary to meet requirements that are other than local in nature.
- o - The Coastal Zone Management Program should consider the importance of orderly mineral development to national as well as regional and local economies.
- The Coastal Zone Management Program should assure the continuation of ongoing mineral activities.
- The Coastal Zone Management Program should provide for the identification of known and potential mineral resources on a continuing basis.
- In terms of multiple use, the Coastal Zone Management Program should recognize the value of new mineral development in land use planning.

Coastal Zone Unit Response:

Consideration of the national interest in the coastal zone is reflected in the goals and objectives, program elements, and strategy for implementation of the Coastal Zone Management Program. One goal of the Coastal Zone Management Program is to promote the location of major facilities in appropriate coastal areas to maintain environmental quality. In order to develop resource and impact information, siting methodologies, and policy alternatives in support of this program element, the Coastal Zone Unit is conducting a study of major facility siting in the State. Major facilities are defined to include existing and potential sand and gravel extraction facilities. Major work tasks include:

- a. A regional screen, to include extensive factor mapping, to identify areas, by facility type, that are most likely to contain sites suitable for the construction and operation of major facilities.
- b. Development of a method for the State to identify and resolve conflicts associated with major facility siting, construction, and operation.
- c. Development of a system enabling state and local governments to assess the economic, fiscal and social impacts of major facility siting, construction and operation.
- d. Development of an environmental site assessment method capable of identifying, measuring, and evaluating the environmental impact of major facility proposals on a site specific basis.

The Bureau of Mines has had the opportunity to review and comment on the program element and study at several stages in its formation and progress.

Another objective of the program addresses mineral resources directly: "To encourage the wise use of valuable coastal mineral resources, taking due regard for protection of the environment and encouraging sequential multiple use of mineral lands."

Because the state liaison office of the Bureau of Mines has established excellent support with the Coastal Zone Unit, no further coordination mechanisms appear necessary.

Bureau of Outdoor Recreation

Contact: Mr. Robert Gift
Chief, State Planning Division
Bureau of Outdoor Recreation
600 Arch Street
Philadelphia, Pennsylvania 19106

Agency Interests in the Coastal Zone Management Program:

To date, the Bureau has not provided specific guidance to the Coastal Zone Unit on its interest in the Coastal Zone Management Program.

Coastal Zone Unit Response:

In the absence of formal guidance, the Coastal Zone Unit has used the State Comprehensive Outdoor Recreation Plan (SCORP) for guidance in this area. The Coastal Zone Management Program will be compatible with SCORP.

During program development, the Coastal Zone Unit conducted an extensive study of recreational boating in Chesapeake Bay. Information produced by this study could be useful to the Bureau of Outdoor Recreation in assessing recreation priorities in Maryland. The Bureau of Outdoor Recreation could benefit from more active involvement in the Coastal Zone Management Program.

Fish and Wildlife

Contact: Mr. Ralph Andrews
Fish and Wildlife Service
One Gateway Center
Suite 200
Newton Corner, Mass. 02158

Intragency Coordination:

The Fish and Wildlife Service (FWS) has actively been involved in the review of key program documents and in the development of program concepts. Coordination presently exists in review of proposed major projects within the coastal boundary. The potential for expanding coordination efforts exists through present permit processing procedures. Several of the State Coastal Zone Management publications have been of value to FWS in assessing proposed project impacts in the coastal zone, and it looks forward to future publications.

Agency Interests in the Coastal Zone Management Program:

The Fish and Wildlife Service has provided helpful data on its activities and interests in Maryland, and specific comments to the Coastal Zone Unit on its interest in the Coastal Zone Management Program and key program documents. The mission of the Service is to conserve and enhance fish and wildlife resources and to assure opportunity for the public benefit of those resources. The following programs of the Service reflect FWS interest in the coastal zone:

- The acquisition, development and management of a system of National Wildlife Refuges for migratory birds, endangered species, and their habitats.
- The operation of about 100 fish hatcheries (nationwide) for breeding, raising, and distributing sport fish.
- The preservation and enhancement of critical areas for rare and endangered species.
- The Service acts as a biological consultant to federal agencies that plan, construct or license water development projects and coordinate with the appropriate state agencies on such projects.
- The Service conducts basic research on fish and wildlife at several wildlife research centers and fish laboratories. The Coastal Zone Management Program may be a vehicle in providing guidance and direction in coordinating research efforts in the coastal zone.

Permit Programs Subject to the Federal Consistency Regulations: None

However, under authority of the Fish and Wildlife Coordination Act (as amended), whenever the waters of any stream or other body of water are proposed or authorized to be modified for any purpose, by any department or agency of the United States government, or by any private or public agency under federal permit or license, the permitting agency must first consult with the FWS and the appropriate state fish and wildlife departments. The Fish and Wildlife Service provides a report on all such projects, which describes the impact of the proposed work on public fish and wildlife resources, to the permitting agency.

Coastal Zone Unit Response:

There has been substantial staff interaction on a number of issues between the Coastal Zone Unit and the Annapolis Office of FWS. The Annapolis staff has expressed the general feeling that the goals and objectives of the Coastal Zone Management Program are, by and large, complementary to the activities of FWS.

The Fish and Wildlife Service should be adequately funded in order to participate more actively in the Coastal Zone Management Program. Of special interest to FWS should be the Coastal Zone Management Program's Project Evaluation Process, described in Chapters I and II.

Geological Survey

Contact: Regional

William B. Overstreet
Assistant Director, Eastern Region
U.S. Geological Survey
National Center MS109
Reston, Virginia 22092

State

Walter F. White
District Chief, WRD-USGS
208 Carroll Building
8600 La Salle Road
Towson, Maryland 21204

Agency Interest in the Coastal Zone Management Program:

The coastal zone interests of the U.S. Geological Survey are an outgrowth of its role as a research and fact-finding organization directed toward acquiring and disseminating data and information about the configuration and use of the land surface; the composition and structure of the rocks that underlie the land surface; the distribution and character of the nation's water and mineral resources; and the geologic and hydrologic processes that relate to the discovery and use of those resources.

The Geological Survey has the additional responsibilities to classify the mineral resource and water power development potential of federal lands and to supervise mineral extraction from federal lands or from lands for which the Federal Government has retained other mineral rights.

Coastal Zone Unit Response:

Although the Geological Survey has not participated extensively with the Coastal Zone Unit in program development, the Coastal Zone Unit has interacted frequently with the Conservation Division of the Geological Survey on Outer Continental Shelf matters, and with the Geological Survey's Resource and Land Investigations Program. The Geological Survey's interest in water and mineral resources, and Outer Continental Shelf activity, are reflected in the goals and objectives, program elements, and strategy for implementation of the Coastal Zone Management Program.

National Park Service

Contact: Mr. Thomas F. Norris
National Park Service
Rt. 2, P.O. Box 294
Berlin, Maryland 21811

Statutory Authorities:

As a federal executive agency, the National Park Service is specifically responsible for identifying, preserving, and managing significant natural, cultural, historic, archeological, and recreational values in Maryland. The following federal laws govern these activities:

- The Antiquities Act of 1906 (34 Stat. 225).
- The Historic Sites Act of 1935 (49 Stat. 666).
- The Reservoir Salvage Act of 1969 (74 Stat. 220) as amended by the Archeological and Historic Preservation Act of 1974 (Public Law 93-291).
- The Historic Preservation Act of 1966 (80 Stat. 915).
- Executive Order No. 11593 (Protection and Enhancement of the Cultural Environment).
- The Act Establishing the National Park Service of 1916 (39 Stat. 535).

Agency Interests in the Coastal Zone Management Program:

Service relating to the coastal zone:

1. Units of the National Park System. While federal lands are excluded from the State's coastal zone, they should be identified in any state inventory because they will be affected by projects or actions which may occur outside their boundaries. Conversely, developments or proposed uses of park lands could also affect adjacent lands or waters within the State's coastal zone and therefore be subject to the consistency provisions of the Coastal Zone Management Act.
2. As keeper of the National Register, the National Park Service has program responsibility for:
 - a. Natural areas currently listed or eligible to be listed on the National Register of Natural Landmarks.
 - b. Historical, archeological, and architectural sites, districts, or artifacts listed or having the potential to be listed on The National Register of Historic Places, including those which have either been or have the potential to be designated as National Historic Landmarks by virtue of their national significance.

Services provided to the State under provisions of the National Historic Preservation Act of 1966 include 70 percent matching grants. Grant funds may be used for the preparation of comprehensive state-wide historic preservation surveys and plans and for acquisition and development of properties listed in the National Register. The State may transfer funds to local governments or private organizations and individuals. For acquisition and development projects involving a private transference, the public interest is protected by deed covenants assuring maintenance, administration, and public benefit.

Development funds are used for the protection, rehabilitation, restoration, and reconstruction of historic properties. Evidence of conformance to professional standards established by the Secretary of the Interior must be shown in the form of plans, specifications, shop drawings, or other materials submitted by the State to the National Park Service or by onsite inspections by the Division of Grants personnel.

Other services provided by the National Park Service include:

1. The Historic American Buildings Survey, a nationwide program to record - by measured drawings and photographs - important examples of historic American architecture. The program is conducted by the National Park Service in cooperation with the American Institute of Architects (AIA) and the Library of Congress under the authority of Public Law 74-292; 16 USC 463. Specific information can be obtained from the Director, National Park Service, Washington D.C.; Regional Director, Mid-Atlantic Region, Philadelphia, Pa.; and through inquiry to the Director, Maryland Environmental Trust, Annapolis, Md.
2. The Historic American Engineering Record is a program for recording--by measured drawings, photographs, and documented historic reports--important examples of American engineering and industrial architecture. It is conducted by the National Park Service in cooperation with the American Society of Civil Engineers and the Library of Congress, using the same legislative authority. Information may be obtained from the Director, National Park Service, Washington, D.C.; Regional Director, Mid-Atlantic Region, Philadelphia, Pa.; and through inquiry to the Director, Maryland Environmental Trust, Annapolis, Maryland.
3. A final element of National Park Service program responsibility of concern to Maryland because of its potential effect on the State's coastal zone, involves Archeological Investigation and Salvage (Interagency Archeological Salvage Program)--designated to discover knowledge of and to recover artifacts from known or suspected archeological sites which are threatened by the construction of highways, dams, pipelines, and other public works whenever federal financing or licensing is involved. The program is sponsored by the National Park Service in cooperation with a number of other federal agencies and with private organizations. Assistance is

provided through project grants under the authority of the Reservoir Salvage Act of 1960 (Public Law 86-523); 74 Stat. 220) and the Historic Preservation Act of 1966 (Public Law 89-665; 80 Stat. 915). Contracts are awarded for the preparation of a publishable report on the analysis of surveys and/or excavations of historic, archeological, or paleontological values within the construction project area and related developments. Projects may be located on either federal or non-federal lands. For information contact Director, National Park Service, or Regional Director, Mid-Atlantic Region.

Coastal Zone Unit Response:

The National Park Service has provided extensive information on Park Service lands and activities in Maryland. This information has proven useful in the conduct of resource inventories and studies. Because Park Service lands are not located in the coastal zone, continued interaction is necessary to ensure that Coastal Zone Management Program goals and objectives adequately reflect the National Park Service's interest in state recreation and habitat preservation policies.

Nuclear Regulatory Commission

Contact: Mr. Andrew Robart
Special Asst. for State Relations
Office of State Programs
Nuclear Regulatory Commission
Washington, D.C. 20555

Other Relevant Agencies:

Maryland Power Plant Siting Program

Federal Property Excluded from Coastal Zone: None

Statutory Authority: Various

Interagency Coordination:

Nuclear Regulatory Commission has limited its participation in program development to official contacts.

Agency Interests in the Coastal Zone Management Program:

The Nuclear Regulatory Commission is interested in the effect the energy facility siting element of the Coastal Zone Management Program will have on its activities.

Permit Programs Subject to Consistency:

Nuclear Regulatory licensing and certification activities.

Coastal Zone Unit Response:

Awareness of the importance of the national interest in energy development, and energy facility siting is reflected in the goals and objectives, program elements, and strategy for implementation of Maryland's Coastal Zone Management Program.

One goal of the Coastal Zone Management Program is to promote the location of major facilities in appropriate coastal areas to maintain environmental quality, in order to develop resource and impact information, siting methodologies, and policy alternatives. In support of this goal, the Coastal Zone Unit is conducting a study of major facility siting in the State. Major facilities are defined to include nuclear power plants. Major work tasks include:

- a. A regional screen to identify areas that are most likely to contain sites suitable for major facilities.
- b. Development of a method for the State to identify and resolve conflicts associated with major facilities.

- c. Identification and preliminary assessment of three potential power plant sites on Maryland's Eastern Shore.
- d. Development of a system enabling state and local governments to assess the economic, fiscal and social impacts of major facility siting, construction and operation.
- e. Development of an environmental site assessment method capable of identifying, measuring, and evaluating the environment impact of major facility proposals on a site specific basis.

The Nuclear Regulatory Commission has had the opportunity to review and comment on this study.

Maryland's Power Plant Siting Act is nationally recognized as a progressive, innovative approach to power plant siting. Because the Coastal Zone Unit's strategy for implementation of the Coastal Zone Management Program relies heavily on the participation of all federal, state, and local agencies exercising management authority in the coastal zone, this Act will form the cornerstone of Maryland's approach to nuclear power plant siting.

Program Coordination

The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated Nuclear Regulatory Commission contact.

Department of Transportation

Contact: Robert Brown, Jr.
Regional Representative of the Secretary
U.S. Department of Transportation
434 Walnut Street
Philadelphia, Pennsylvania 19106

Other Relevant Agencies: None

Federal Property Excluded from Coastal Zone:

Those properties included in "State and Federal Land Inventory", Maryland Department of State Planning Technical Series, August, 1974, as updated; and as listed in Appendix A.

Statutory Authority:

Department of Transportation Act (49 USC 1651, et. seq.)
Federal Aviation Administration Act of 1958, as amended (49 USC 1301, et. seq.)
Airport and Airways Development Act (49 USC 1701, et. seq.)
Title 23, USC, "Highways", Section 101, et. seq.
Urban Mass Transportation Act (49 USC 1601, et. seq.)
Railway Safety Act of 1970 (45 USC 421)
Regional Rail Reorganization Act of 1973 (P.L. 93-236)
Water Resources Planning Act (42 USC 1962)
Federal Water Pollution Control Act Amendments of 1972 (33 USC 1151)
Ports and Waterways Safety Act of 1972 (33 USC 1221-1227, 46 USC 391a)
Deepwater Port Act of 1974 (33 USC 1501)
Outer Continental Shelf Act (43 USC 1331-1343)
Marine Protection, Research and Sanctuaries Act of 1972 (16 USC 1431, 33 USC 1401)
Coast Guard, Primary Duties (14 USC 2)
National Traffic and Motor Vehicle Safety Act of 1966, as amended (15 USC 1381, et. seq.)
Highway Safety Act of 1966, as amended (23 USC 401, et. seq.)
National Gas Pipeline Safety Act (49 USC 1671, et. seq.)
Transportation of Explosive Act (18 USC 831-835)
Hazardous Materials Transportation Act (49 USC 1801-1811)

Interagency Coordination:

Department of Transportation has limited its participation in program development to official contacts.

Agency Interests in the Coastal Zone Management Program:

The Coastal Zone Management Program must be compatible with, and support, the national transportation interest, which finds expression in the body of federal laws, regulations and the related programs that influence, shape and support the development and functioning of the nation's transportation system.

Permit Programs Subject to Consistency: None

Coastal Zone Unit Response:

Awareness of the importance of the national interest in transportation is reflected in the goals and objectives, program elements, and strategy for implementation of Maryland's Coastal Zone Management Program.

One goal of the Coastal Zone Management Program is to promote the location of major facilities, including transportation facilities, in appropriate coastal areas to maintain environmental quality. Three objectives in support of this goal are:

- To provide for water dependent activities in shoreland areas where appropriate and necessary and to encourage the inland siting of facilities which are not water dependent.
- To encourage the location of new coastal facilities, both industrial and residential, in existing developed areas capable of accommodating additional development, in areas suitable and planned for redevelopment. or in areas determined by scientific study to be environmentally and economically suitable for development.
- To promote the development and viability of port areas in Maryland in an environmentally compatible manner.

An important program element of the Coastal Zone Management Program seeks to resolve conflicts of use in developmental critical areas, including areas suitable for transportation uses. Management objectives for this element seek to: resolve conflicts concerning the location of major facilities in Maryland's Coastal Zone; reduce developmental pressures on high value coastal resources; and provide for the management of areas where major facility activities are most suitable with environmental and economic policies of the State. In order to develop resource and impact information, siting methodologies, and policy alternatives in support of this program element, the Coastal Zone Unit is conducting a study of major facility siting in the State. Major facilities are defined to include ports. Major work tasks include:

- a. A regional screen that includes extensive factor mapping, to identify areas by facility type that are most likely to contain sites suitable for the construction and operation of major facilities.
- b. Development of a method for the State to identify and resolve conflicts associated with major facility siting, construction, and operation.

- c. Development of an environmental site assessment method capable of identifying, measuring, and evaluating the environmental impact of major facility proposals on a site specific basis.

The Department of Transportation has had the opportunity to review and comment on the program element and the study at several stages in its formation.

Program Coordination:

The Coastal Zone Unit will continue to bring matters of program significance to the attention of the designated Department of Transportation contact. In addition, the Coastal Zone Unit is assisting the Maryland Department of Transportation in determining state priorities for purchase of certain abandoned Penn Central properties as provided in the Railroad Revitalization and Regulatory Reform Act of 1976.

Appendix Q.

Guidelines For Evaluating Environmental Impacts of Energy Facilities

Power Plants in Maryland

The environmental impacts of proposed power plant sites are evaluated by the Power Plant Siting Program within the Energy and Coastal Zone Administration of the Department of Natural Resources. Evaluation includes collection of data on site characteristics, determination of the range of likely design parameters, and analysis of the interaction of alternative designs with the site environment.

A site is recommended as acceptable only if specified design and operating criteria, derived as a result of the site evaluation, are met. Although the significance of each criterion will vary depending on specific site and design characteristics, the following studies are expected to be conducted for proposed sites in Maryland's coastal zone.

1. Aquatic Ecology Field Program: Extensive field programs, covering at least one full year, to determine temporal and spatial distributions of phytoplankton, zooplankton, benthic organisms, and finfish and shellfish, including ichthyoplankton, juvenile and adult life stages of fisheries.
2. Water Quality Field program: In conjunction with the aquatic ecology field program, collection of data on temperature, salinity, pH, dissolved oxygen, nutrients, heavy metals, and suspended solids.
3. Hydrography Field Program: To analyze the transport and dispersion of planktonic organisms and pollutants, collection of data on net flow, tidal range and velocities, salinity, temperature, and currents. Dye releases are utilized to track intermediate-field mixing.
4. Hydrography Analysis: Circulation of the receiving water body and mixing and dilution of proposed discharges analyzed by developing dynamic and kinematic mathematical models of circulation adjusted and verified, utilizing data collected in the field program and analytical models of nearfield dilution from specific discharge designs. The results are used to derive dilution contours of emitted pollutants.
5. Cooling System Design: Alternative intake and discharge configurations to be analyzed for potential costs and benefits. The cooling system is analyzed from the standpoint of minimizing water needs.

6. Aquatic Impact: The effects of entrainment, impingement, and waterborne effluents on important life stages of key aquatic species, analyzed in terms of cropping of individual life stages, effect on adult populations, and significance to regional populations.
7. Water Quality Analysis: Pollutant discharges analyzed to determine compliance with state and federal emission limitations and ambient standards.
8. Dredging: Analysis of quantity and characteristics of dredged spoil, alternative dredging processes, spoil disposal methods, and impact of dredging on benthic habitat, water quality, and littoral processes.
9. Meteorology: Collection of data from on-site instrumented towers, upper air soundings, and nearby airports for use in stack plume and cooling tower plume analysis.
10. Cooling Tower Impacts: Alternative cooling tower designs evaluated from the standpoint of induced ground fog, visible plumes, icing, salt drift deposition, operational experience, economics, land use, and aircraft hazards.
11. Noise: Octave-band and discrete tone analysis conducted using ambient noise data collected at the site and noise emissions measured at operating power plants.
12. Groundwater: Drawdown effects on off-site users of construction and operating withdrawals, analyzed using data from on-site pumping tests. Impacts on aquifers of pollutant discharges are assessed.
13. Air Quality Impact: Alternative designs analyzed to determine compliance with air quality emission limitations and ambient standards use tuned dispersion models.
14. Visible Impact: Analysis of visibility of plumes and plant structures.
15. Sediment and Erosion Control: Major aspects of the sediment and erosion control plan assessed from the standpoint of site land use, minimization of soil disruption, and positive control over movement and containment of storm water and eroded sediment.
16. Transmission Line Impact: Electrical effects - TV and radio interference, induced currents, spark discharges, ozone generation, and audible noise analyzed using measurements taken under operating high voltage lines. The route is evaluated to determine the potential for significant impact on terrestrial habitat and land use.

17. Terrestrial Impact: Impact on rare and endangered species and critical habitat assessed using results of field observations.
18. Radiological Impacts: Radiological dose to the most-exposed individual and to the regional population analyzed using Nuclear Regulatory Commission-developed source terms and models and site-specific model inputs.

OCS Related Facilities in Maryland

The following lists are types of potential facilities that may seek to locate in Maryland's coastal zone as a result of new Outer Continental Shelf (OCS) activity in the Atlantic. These facilities are either water dependent or water oriented in nature and should be classified as such.

The potential facilities are:

Water Oriented

Pipeline Landfalls
Operation Bases
Platform Fabrication Yards
Liquid Natural Gas Receiving Terminals

Water Dependent

Refineries
Gas Processing Plants
Intermediate Production Terminals
Oil Storage Facilities

Energy management and environmental protection are coordinate objectives. Responsible decisions allocating energy resources needed for Maryland's well-being while protecting the environment require a balance of many social, economic, and environmental options. In each individual decision the particular economic and technical benefits of energy allocation and utilization must be assessed and weighed against the costs and benefits of environmental controls.

Once a prospective site is identified the following guidelines should be assessed. In general, a facility could be sited in a location that would satisfy these requirements:

1. The waste from the facility will not exceed air quality standards.
2. The waste from the facility will not exceed water quality standards.
3. There are sufficient surface and/or groundwater supplies to accommodate the facility.
4. There is a minimal slope to the land at the site.
5. The site is within economical distances of rail, water, and roads.
6. If water oriented, the water depth must be sufficient to handle the accompanying traffic.

7. The local labor force is sufficient to handle the labor needs of the facility.
8. The soil foundation is suitable for the facility.
9. The surrounding area is capable of handling the discharges and additional run off created by the facility.
10. There is a power grid in the area capable of providing the facility with its energy needs.
11. The zoning classification of the site is appropriate for the proposed facility.
12. There is an adequate local government framework to manage the facility.

Conversely, there are certain areas that generally should be avoided when considering sites for the facilities where all other criteria are equal. These areas are ones classified as one of the following:

- A. Wetlands.
- B. State Critical Areas classified as conservation or preservation areas where the proposed facility is not identified as a compatible use.
- C. Priority Upland Natural Areas.
- D. Federal or state parks.
- E. Historical sites.
- F. 100 percent developed land that is economically useful.
- G. Hazard Prone Areas.
- H. Aquatic Critical Areas which are designated preservation areas.
- I. Scenic River Shorelines.
- J. Wildlife Areas.
- K. Wilderness Areas.
- L. Areas where the appropriate air or water quality standards would be exceeded if the facility was constructed.

While each of these facilities are equally essential in exploration and development of OCS hydrocarbons, the demands created by each type of facility are quite different. Listed below is a representative range of requirements for each type of facility in terms of land, operational labor, water, and power needs.

Pipeline Landfalls

Land - 100-200 feet for right of way
Labor - 8-20 employees
Water - negligible
Power - negligible

Operation Bases

Land - 30-50 acres with 400'-1000' wharfage
Labor - 50-200 employees
Water - 35,000-150,000 gallons/day
Power - 125-500 barrels of diesel fuel/day

Platform Fabrication Yard

Land - 100-2000 acres with 500'-1200' wharfage
Labor - 500-2000 employees
Water - 175,000-500,000 gallons/day
Power - 3000 KW hrs/day

LNG Receiving Terminals

Land - 30-100 acres with 600'-1000' wharfage
Labor - 130-175 employees
Water - 300,000-1,500,000 gallons/day
Power - 1000-1800 KW hrs/day plus 50 barrels of diesel fuel/day

Refineries

Land - 1000-1500 acres
Labor - 400-1000 employees
Water - 5,000,000-15,000,000 gallons/day
Power - 75,000-125,000 KW hrs/day plus 15-25 barrels of diesel fuel/day

Gas Processing Plant

Land - 25-150 acres
Labor - 20-50 employees
Water - 300,000-1,500,000 gallons/day
Power - 36,000-180,000 KW hrs/day

Intermediate Production Terminal

Land - 10-75 acres
Labor - 8-25 employees
Water - negligible
Power - negligible

Oil Storage Facilities

Land - 20-100 acres
Labor - 20-50 employees
Water - negligible
Power - negligible

Appendix R

Management of Tidal Wetlands in Maryland

The Maryland Wetlands Act, passed in 1970, is administered by the Wetlands Permit Section of the Water Resources Administration, an agency of the Maryland Department of Natural Resources. The Act was enacted to preserve the tidal wetlands to the extent possible, in the face of varying demands for their use or modification.

The regulation of dredging and/or filling on State wetlands, as defined in the Act, is an extension of pre-existing Maryland policy. Licenses were required by the State Board of Public Works for these types of works for some years prior to 1970. In addition to application for appropriate State approval, any project involving State and/or Private wetlands also requires a federal permit from the U.S. Army Corps of Engineers.

This appendix sets forth the mechanisms for managing Maryland's tidal wetland areas. It contains (1) the text of the Maryland Wetlands Act (p. R-2); (2) the order establishing wetland boundaries and rules and regulations (p. R-10); and (3) policy guidelines or criteria used by the Wetlands Permit Section in reviewing applications (p. R-16).

ANNOTATED CODE OF MARYLAND (1974)

NATURAL RESOURCES

TITLE 9

WETLANDS AND RIPARIAN RIGHTS

Subtitle 1. In General.

9-101. DEFINITIONS.

(a) Generally. - In this title, the following words have the meaning indicated.

(b) "Board" means Board of Public Works.

(c) "Circuit court", when used to designate the court having jurisdiction to review administrative action taken pursuant to this title, means the Baltimore City Court if the land involved in the appeal is located in Baltimore City.

(d) "County" includes Baltimore City unless otherwise indicate.

(e) "Department" means Department of Natural Resources.

(f) "Dredging" means the removal or displacement by any means of soil, sand, gravel, shells, or other material, whether or not of intrinsic value, from any state or private wetlands.

(g) "Filling" means either the displacement of navigable water by the deposition into state or private wetlands of soil sand, gravel, shells, or other materials, or the artificial alteration of navigable water levels by any physical structure, drainage ditch, or otherwise.

(h) "Landward boundary of wetlands" means the common boundary between wetlands as defined in this section and lands not included within the definitions of wetlands appearing in this section.

(i) "Person" means any natural person, partnership, joint-stock company, unincorporated association or society, the state, any unit of the state, a political subdivision, or other corporation of any type.

(j) "Private wetlands" means any land not considered "state wetland" bordering on or lying beneath tidal waters, which is subject to regular or periodic tidal action and supports aquatic growth. This includes wetlands, transferred by the state by a valid grant, lease, patent, or grant confirmed by Article 5 of the Declaration of Rights of the Constitution, to the extent of the interest transferred.

(k) "Regular or periodic tidal action" means the rise and fall of the sea produced by the attraction of the sun and moon uninfluenced by wind or any other circumstance.

(l) "Secretary" means Secretary of Natural Resources.

9-101.

(m) "State wetlands" means any land under the navigable waters of the state below the mean high tide, affected by the regular rise and fall of the tide. Wetlands of this category which have been transferred by the state by valid grant, lease, patent or grant confirmed by Article 5 of the Declaration of Rights of the Constitution shall be considered "private wetland" to the extent of the interest transferred.

9-102. DECLARATION OF PUBLIC POLICY.

In many areas of the state much of the wetlands have been lost or despoiled by unregulated dredging, dumping, filling, and like activities, and the remaining wetlands are in jeopardy of being lost or despoiled by these and other activities. The loss or despoliation will affect adversely, if not eliminate entirely, the value of the wetlands as a source of nutrient to finfish, crustacea, and shellfish of significant economic value; the loss or despoliation will destroy the wetlands as a habitat for plants and animals of significant economic value and eliminate or substantially reduce marine commerce, recreation, and aesthetic enjoyment; in most cases, the loss or despoliation will affect the natural ability of tidal wetlands to reduce flood damage and affect adversely the public health and welfare; the loss or despoliation will reduce substantially the capacity of the wetlands to absorb silt and result in increased silting of channel and harbor areas to the detriment of free navigation. It is therefore the public policy of the state, taking into account varying ecological, economic, developmental, recreational, and aesthetic values, to preserve the wetlands and prevent their despoliation and destruction. (An. Code 1957, art. 66C, & 718; 1973, 1st Sp. Sess., ch. 4 & 1.)

9-103. RIPARIAN OWNERS NOT TO BE DEPRIVED OF CERTAIN RIGHTS.

Except as specifically provided in this title, a riparian owner may not be deprived of any right, privilege, or enjoyment of riparian ownership that he had prior to July 1, 1970. The provisions of this title do not transfer the title or ownership of any land or interest in land. (An. Code 1957, art. 66C, & 731, 1973, 1st Sp. Sess., ch. 4, & 1.)

Subtitle 2. State Wetlands.

9-201. ACCRETION TO AND IMPROVEMENT IN FRONT OF LAND ON NAVIGABLE WATER;
RECLAMATION OF LOST FAST LAND.

A natural person who is the owner of land bounding on navigable water is entitled to any natural accretion to his land, to reclaim fast land lost by erosion or avulsion during his ownership of the land to the extent of provable existing boundaries. He may make improvements into the water in front of his land to preserve his access to the navigable water or protect his shore against erosion. After an improvement has been constructed, it is the property of the owner of the land to which it is attached. A right covered in this subtitle does not preclude the owner from developing any other use approved by the board. The right to reclaim lost fast land related only to fast land lost after January 1, 1972, and the burden of proof that the loss occurred after this date is on the owner of the land. (An. Code 1957, art. 66C & 720; 1973, 1st Sp. Sess., ch. 4, & 1.)

9-202. LICENSE FOR DREDGING OR FILLING.

(a) Required. - A person may not dredge or fill on state wetlands, without a license.

(b) Secretary to assist Board and prepare report. - The Secretary shall assist the Board in determining whether to issue a license to dredge or fill state wetlands. The Secretary shall submit a report indicating whether the license should be granted and, if so, the terms, conditions, and consideration required after consultation with any interested federal, state, and local unit, and after holding any hearing and taking any evidence the Secretary thinks advisable.

(c) Hearing; issuance; conditions. - After a hearing in the local subdivision affected, the Board shall decide if issuance of the license is in the best interest of the State, taking into account the varying ecological, economic, developmental, recreational, and aesthetic values each application presents. If the Board decides to issue the license, it shall be for consideration and on terms and conditions the Board determines. Every license shall be in writing. With respect to an application for a license to fill or construct a shore erosion control structure on state wetlands, the Board may issue the license without a hearing if the fill area is less than 300 feet in length parallel to the fastland and not more than 10 feet channelward of the mean high water line and if the report of the Secretary recommends that the license be granted.

(d) Exceptions. - The provisions of this section do not apply to any operation for: (1) dredging and filling being conducted as of July 1, 1970, as authorized under the terms of an appropriate permit or license granted under the provisions of existing state and federal law; (2) dredging of seafood products by any licensed operator, harvesting of seaweed, or mosquito control and abatement as approved by the Department of Agriculture; or (3) improvement of wildlife habitat or agricultural drainage ditches as approved by an appropriate unit.

(e) Penalty for violation of section. - Any person who violates any provision of this section is guilty of a misdemeanor. Upon conviction, the person is subject to a fine not exceeding \$1000 with costs imposed in the discretion of the court. (An. Code 1957, art. 66C, & 721; 1973, 1st Sp. Sess., ch. 4 & 1.)

Subtitle 3. Private Wetlands.

9-301. INVENTORY; PREPARATION OF BOUNDARY MAPS; HEARINGS ON PROPOSED BOUNDARY MAP; ORDER ESTABLISHING BOUNDS AND RULES AND REGULATIONS.

(a) Secretary to inventory private wetlands; preparation of maps. - The Secretary shall promptly delineate the landward boundaries of any wetlands in the state. The landward boundaries of the wetlands shall be shown on suitable maps or aerial photographs on a scale of one inch to 200 feet. The maps shall cover an entire political subdivision of the state as determined by the Secretary.

(b) Secretary to hold hearing in county of affected private wetlands. - The Secretary shall hold a public hearing in the county of the affected wetlands on completion of the boundary map required in subsection (a) and adoption of proposed rules and regulations provided in 9-302. The Secretary shall give notice of the hearing by registered or certified mail not less than 30 days prior to the hearing date, to each owner shown on tax records as an owner of land designated on the map as a wetland. The notice shall include the proposed rules and regulations. The Secretary shall publish notice of the hearing at least once not more than 30 days and not fewer than 10 days before the date of the hearing in a newspaper published within and having a general circulation in every county where the wetlands are located.

9-301.

(c) Order establishing bounds, rules and regulations; notice of order. - After considering the testimony at the hearing and any other pertinent fact, considering the rights of every affected property owner, and the purposes of this subtitle, the Secretary shall establish by order the landward bounds of each wetland and the rules and regulations applicable to it. A copy of the order, together with a copy of the map depicting the boundary lines, shall be filed among the land records in every county affected after final appeal has been completed. The Secretary shall give notice of the order to each owner of record of any land designated as wetlands by mailing a copy of the order to the owner by registered or certified mail. The Secretary shall also publish the order in a newspaper published within and having a general circulation in every county where the wetlands are located. (An. Code 1957, art. 66C, & 724; 1973, 1st Sp. Sess., ch. 4 & 1.)

9-302. RULES AND REGULATIONS GOVERNING DREDGING AND FILLING.

(a) Secretary to promulgate. - To promote the public safety, health, welfare, wildlife, and marine fisheries, the Secretary may promulgate rules and regulations governing dredging, filling, removing, or otherwise altering or polluting private wetlands. The rules and regulations may vary as to specific tracts of wetlands because of the character of the wetlands.

(b) Rules and regulations promulgated with advice and consent of Maryland Agricultural Commission. - The rules and regulations shall be promulgated with the advice and consent of the Maryland Agricultural Commission, and in consultation with any appropriate unit in the affected political subdivision.

(c) Maryland Agricultural Commission to act upon proposed rules and regulations. - The Secretary shall transmit a copy of any proposed rules and regulations to the Maryland Agricultural Commission. Within 60 days from the receipt of the copy, the Maryland Agricultural Commission shall inform the Secretary of its decision as to the acceptance or rejection of the rules and regulations. Failure to so inform the Secretary shall be considered approval of the rules and regulations by the commission. (An. Code 1957, art. 66C, & 722; 1973, 1st Sp. Sess., ch. 4 & 1.)

9-303. CERTAIN LAWFUL USES ENUMERATED.

Notwithstanding the rule or regulation promulgated by the Secretary to protect private wetlands, the following uses are lawful on private wetland:

- (1) Conservation of soil, vegetation, water, fish, shellfish, and wildlife;
- (2) Trapping, hunting, fishing, and catching shellfish if otherwise legally permitted; and
- (3) Exercise of riparian rights to improve land bounding on navigable water, to preserve access to the navigable water or protect the shore against erosion.
- (4) Reclamation of fast land owned by a natural person and lost during his ownership of the land by erosion or avulsion to the extent of provable pre-existing boundaries. The right to reclaim lost fast land relates only to fast land lost after January 1, 1972. The burden of proof that the loss occurred

9-303

after this date is on the owner of the land. (An. Code 1957, art. 66C & 723; 1973, 1st Sp. Sess., Ch. 4 & 1.)

9-304. ADMINISTRATIVE APPEAL FROM RULES AND REGULATIONS AND DESIGNATION OF LAND AS WETLAND.

Any person who has a recorded interest in land affected by any rule or regulation promulgated under this subtitle may appeal the rule or regulation and designation of his land as wetland to the board of review of the department as provided in Title 1 of this article. The proceedings shall be held in the county where the land is located, and the board of review shall view the land in question. (An. Code 1957, art. 66C & 725; 1973, 1st Sp. Sess., ch. 4 & 1.)

9-305. JUDICIAL REVIEW OF ADMINISTRATIVE APPEAL.

(a) Appeal procedure; time limitation. - If the person is dissatisfied with the decision of the board of review, pursuant to 9-304, he may petition the circuit court in the county where the land is located, within 30 days after receiving its decision, to determine whether the rule or regulation restricts the use of his property so as to deprive him of its practical use and is an unreasonable exercise of the police power so as to constitute a taking of property without compensation.

(b) Appeal not subject to administrative procedure act; de novo trial; election of jury trial; no right of removal. - The appeal is not subject to the provisions of the Administrative Procedure Act. The court shall hear the case de novo. Either party may elect a jury trial. There is no right of removal.

(c) Judicial considerations. - In weighing the appropriate exercise of the police power, the court shall consider the importance of the land to marine life, shellfish, wildlife, and the prevention of siltation, floods, and other natural disasters, the public health and welfare, and the public policy set forth in this title. If the court finds the rule or regulation is an unreasonable exercise of the police power it shall enter a finding that the rule or regulation does not apply to the petitioner. However, the finding may not affect any land other than that of the petitioner. The Secretary shall record a copy of the finding among the land records in the county.

(d) Appeal to Court of Appeals. - Either party may appeal the decision of the circuit court to the Court of Appeals. (An. Code 1957, art. 66C, & 725; 1973, 1st Sp. Sess., ch. 4 & 1.)

9-306. PERMIT TO CONDUCT ACTIVITY NOT PERMITTED BY RULES AND REGULATIONS - GENERALLY.

(a) Application; notice and hearing; reapplication after denial. - Any person proposing to conduct on any wetland an activity not authorized by the rules and regulations adopted under the provisions of 9-302 shall apply for a permit with the Secretary, on the form the Secretary prescribes. The application shall include a detailed description of the proposed work and a map showing the

areas of wetland directly affected, the location of the proposed work, and the names of the owners of record of adjacent land and every claimant of water rights in or adjacent to the wetland known to the applicant. Within 30 days after receipt of an application, the Secretary shall notify the applicant, in writing, of the extent of state wetlands involved in the proposed activity and indicate the method of compliance with the license requirements of 9-202 of this subtitle. If the applicant claims that any part of the designated state wetlands is private wetlands by virtue of the existence of a valid grant, lease, or patent, or a grant confirmed by Article 5 of the Declaration of Rights of the Constitution, the Secretary shall investigate and determine the validity of the claim and notify the applicant of his determination. If, within 30 days after receipt of the Secretary's determination, the applicant files with the Secretary a written objection to the determination, the Secretary shall promptly institute an appropriate judicial proceeding to determine whether the land or part of it covered by the application in dispute, is state or private wetland. The state shall bear the cost of the proceeding. The Secretary shall mail a copy of the application to the chief administrative officer in the county where the proposed work or any portion is located. No sooner than 30 days and not later than 60 days after receipt of the application, the Secretary or his designated hearing officer shall hold a public hearing on the application in the county where the land is located. If an electric company as defined under the Public Service Commission Law applies to the Public Service Commission for a certificate of public convenience associated with power plant construction which involves private wetlands, the hearing and permit procedure shall be in accordance with 3-306 of this article. The Secretary shall cause a notice of the hearing to be published at least once not more than 30 days and not fewer than ten days before the hearing date in a newspaper published within and having a general circulation in each county where the proposed work, or any portion is located. Every permit application, map, or document shall be open for public inspection at the offices of the Secretary and the chief administrative officer in the county. At the hearing any person may appear and give testimony. A person may not reapply until after the expiration of 18 months from the date of the denial of a prior application or the final determination of an appeal from the denial.

(b) Issuance or denial; conditions and limitations; suspension; revocation; bond. - In granting, denying, or limiting any permit, the Secretary or his designated hearing officer shall consider the effect of the proposed work with reference to the public health and welfare, marine fisheries, shell-fisheries, wildlife, economic benefits, the protection of life and property from flood, hurricane, and any other natural disaster, and the public policy set forth in this title. In granting a permit the Secretary may impose conditions or limitations designed to carry out the public policy set forth in this title. He may require a bond in an amount and with surety and conditions satisfactory to him, to secure compliance with any condition or limitation in the permit. The Secretary may suspend or revoke a permit if he finds that the applicant has not complied with any condition or limitation in the permit or has exceeded the scope of the work as set forth in the application. The Secretary shall state on the record, his findings and reasons for any action taken under this subsection. He shall give notice of his order of issuance, denial, revocation, or suspension of a permit in a newspaper published within and having a general circulation in the county where the wetland lies.

9-306.

(c) Public hearing, failure to act constitutes automatic approval of application. - The Secretary or his designee shall hold a public hearing on the matter within 60 days after receipt of an application for a permit filed pursuant to this section. The Secretary shall render a decision within 30 days after the hearing. Failure to act in conformance with either of these requirements is automatic approval of the application for permit as submitted.

9-307. SAME - APPEAL TO BOARD OF REVIEW FROM DECISION OF SECRETARY.

The applicant, the county or the municipal government where the land is located, may appeal from the Secretary's decision pursuant to 9-306 to the board of review of the department as provided in Title 1 of this article. The proceeding shall be in the county where the land is located and the board of review shall view the affected land. (An. Code 1957, art. 66C, & 727; 1973, 1st Sp. Sess., ch. 4, & 1.)

9-308. SAME - JUDICIAL APPEAL FROM DECISION OF BOARD OF REVIEW.

(a) Appeal procedure; time limitation. - Any party to the appeal to the board of review pursuant to 9-307 may appeal to the circuit court for the county in which the land is located within 30 days after the decision of the board of review.

(b) Appeal not subject to Administrative Procedure Act; de novo trial; election of jury trial; no right of removal. - The appeal is not subject to the provisions of the Administrative Procedure Act. The court shall hear the case de novo. Either party may elect a jury trial. There is no right of removal.

(c) Court may set aside or modify decision if unreasonable exercise of police power. - If the court finds that the decision of the board of review appealed from is an unreasonable exercise of police power, it may set aside or modify the determination.

(d) Appeal to Court of Appeals. - Either party may appeal the decision of the circuit court to the Court of Appeals.

9-309. SAME - PAYMENT OF COURT COSTS OF APPEAL BY STATE.

The court may order the state to pay court costs of any appeal in accordance with the provisions of 9-304, 9-305, or 9-308 if it finds that the financial situation of the person appealing warrants this action. (An. Code 1957, art. 66C, & 729; 1973, 1st Sp. Sess., ch. 4, & 1.)

9-310. COURTS TO RESTRAIN VIOLATIONS OF SUBTITLE.

The court exercising equity jurisdiction in the county where the land or any part of the land is located may restrain any violation of this subtitle in an action brought by the department or any authorized unit or officer of the department. (An. Code 1957, art. 66C, & 730; 1973, 1st Sp. Sess., ch. 4, & 1.)

Subtitle 4. Lands Formed by Channell Excavation in Sinepuxent,
Isle of Wight, and Chincoteague Bays.

This subtitle is not contained in this copy of Title 9, Wetlands and Riparian Rights. Refer to the original Article.

Subtitle 5. Penalties and Fines

9-501. ENUMERATION.

(a) First offense. - Any person who violates any provision of this title is guilty of a misdemeanor. Unless another penalty is specifically provided elsewhere in this title, the person, upon conviction, is subject to a fine not exceeding \$500, or imprisonment not exceeding three months, or both, with costs imposed in the discretion of the court.

(b) Second or subsequent offense. - Any person found guilty of a second or subsequent violation of any provision of this title, unless another penalty is specifically provided elsewhere in this title, is subject to a fine not exceeding \$1000, or imprisonment not exceeding one year, or both with costs imposed in the discretion of the court. For the purpose of this subsection, a second or subsequent violation is one which has occurred within two years of any prior violation of this title.

(c) Violation of rule or regulation. - In addition to any administrative penalty provided in this title, violation of any rule or regulation, or restriction promulgated by any unit within the department pursuant to the provisions of this title is a misdemeanor and is punishable as provided in subsections (a) and (b).

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STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES ADMINISTRATION

ORDER ESTABLISHING WETLAND BOUNDARIES
AND RULES AND REGULATIONS
FOR COUNTY, MARYLAND

The Secretary of Natural Resources, acting pursuant to Sections 718 through 731 of Article 66C of the Annotated Code of Maryland, for the purpose of promoting the public safety, health and welfare and protecting public and private property, wildlife and marine fisheries, hereby adopts this order establishing the landward boundaries of wetlands in this county, as delineated on maps entitled "Wetlands Boundaries", which are listed and are recorded herewith together with the rules and regulations governing dredging, filling, removing, altering or polluting said wetlands in said county.

Section I: Definitions

For the purpose of this Order and the Rules and Regulations thereto:

- A. "State wetlands" means all land under the navigable waters of the State below the mean high tide, which is affected by the regular rise and fall of the tide. Such wetlands, which have been transferred by the State by a valid grant, lease or patent or a grant confirmed by Article 5 of the Declaration of Rights of the Constitution of Maryland, shall be considered "private wetland" to the extent of the interest so transferred.
- B. "Private wetlands" means all lands not considered "State wetlands" bordering on or lying beneath tidal waters, which are subject to regular or periodic tidal action and which support aquatic growth. These include wetlands which have been transferred by the State by a valid grant, lease or patent or a grant confirmed by Article 5 of the Declaration of Rights of the Constitution of Maryland, to the extent of the interest so transferred.
- C. "Dredging" means the removal or displacement by any means of soil, sand, gravel, shells or other material, whether of intrinsic value or not, from State or private wetlands affected by the regular ebb and flow of the tide.
- D. "Filling" means either the displacement of navigable waters by the deposition into wetlands affected by the regular ebb and flow of the tide of soil, sand, gravel, shells or other material; or the artificial alteration of navigable water levels by physical structures, drainage ditches or otherwise.

Section I: Definitions (Continued)

- E. "Person" means any natural person, partnership, joint stock company, unincorporated association or society, or the State and any agency thereof, or municipal or political subdivisions or other corporation of any character whatsoever.
- F. "Regular or periodic tidal action" means the rise and fall of the sea that is produced by the attraction of the sun and the moon uninfluenced by winds or other circumstances.
- G. "Landward Boundary of Wetlands" means the common boundary between wetlands as defined in this Section and lands not included within the definitions of wetlands appearing in this Section.

Section II: General Conditions

This Order and the Rules and Regulations issued pursuant thereto does not grant any property rights; it does not authorize any person to trespass or injure the property of another; it does not excuse any person from complying with other applicable Federal, State, and local laws, regulations or ordinances.

Section III: Authorized Uses of Private Wetlands

The following uses are permitted on private wetlands if otherwise permitted by law:

- A. Projects or Activities Requiring Approval of Other State or Local Agencies or Officials
 - 1. The construction or maintenance of agricultural drainage ditches as approved by the Soil Conservation District for said county.
 - 2. Alterations or modifications for mosquito control purposes as approved by the State entomologist.
- B. Recurring Activities
 - 1. Trapping, hunting, fishing, shellfishing;
 - 2. The cultivation and harvesting of shellfish, including such reasonable excavation as normally is necessary in conducting such activities;
 - 3. The cultivation and harvesting of agricultural or horticultural products, including grazing and haying.

Section III: Authorized Uses of Private Wetlands (Continued)

C. Permanent Alteration or Modification Not Requiring Notification under Section V below

1. The construction and maintenance of walkways, foot bridges, duckblinds, docks, boathouses, boat shelters, and other similar structures, provided that said structures are so constructed on pilings as to permit the unobstructed flow of the tide and preserve the natural contour of the private wetland;
2. The excavation of a single navigation channel for small craft passage intended for private use, provided that the channel is not greater than sixty (60) feet in length, twenty (20) feet in width or three (3) feet in depth at mean low water;
3. Construction and maintenance of tide gates designed to prevent the encroachment of salt water into agricultural drainage ditches.

D. Permanent Alteration or Modification Requiring Notification under Section V below

1. Alterations or modifications which are customary and normal to the conservation of soil, vegetation, water, fish, shellfish, and wildlife;
2. Making improvements necessary to preserve access to navigable waters or to protect private wetlands against erosion; provided that any improvement authorized under this Section (2) involving either the dredging or filling of State wetlands shall not proceed unless a license for filling or dredging such wetland is issued by the Board of Public Works under the provisions of Section 721, Article 66C of the Annotated Code of Maryland;
3. The installation and maintenance of underground utilities, provided that the surface of the wetland is restored substantially to its original condition.

Section IV: Uses and Activities Prohibited on Private Wetlands Without a Permit

Except where otherwise authorized in Section III above or subsequent to a permit issued pursuant to Section VI herein:

- A. No person shall fill, place, dump or discharge on the wetlands encompassed in this Order any loam, peat, sand, gravel, soil, or other similar substance; or any trash, garbage, debris, junk, or other polluting substance.

Section IV: Uses and Activities Prohibited on Private Wetlands Without a Permit (Continued)

- B. No person shall drain, excavate or dredge the wetlands encompassed by this Order, or remove therefrom loam, peat, sand, gravel, soil, or other similar substance.
- C. No person shall perform any act or use the wetlands encompassed in this Order in a manner which would destroy the natural vegetation, substantially alter existing patterns of tidal flow, or otherwise alter or permit the alteration of the natural and beneficial character of such wetland.

Section V: Notification of Intent or Application for Permit and/or License to dredge, fill, remove, or otherwise alter state or private wetlands

Except for the activities authorized under Section III A, B, or C, no person shall dredge, fill, remove or otherwise alter any private wetlands in this county without first informing the Secretary and receiving approval or permit as applicable. A single form as prescribed by the Secretary shall serve either as Notification of Intent or Application for Permit and/or License. The form shall be submitted by mail or in person.

A. NOTIFICATION of Intent

The form shall serve as the Notification prescribed in Section III D for activities not requiring permit and/or license. The proposed activity specified in the form may proceed upon advice from the Secretary.

B. APPLICATION for Permit and/or License

The form shall also serve as the Application for permit to conduct an activity on private wetland not permitted in Section III above, and for license to conduct any activity on state wetlands.

Within thirty (30) days after receipt of the completed form, NOTIFICATION of Intent or APPLICATION for Permit and/or License, the Secretary shall inform the person filing such form by mail whether the proposed activity may proceed or whether it shall require a private wetlands permit from the Department of Natural Resources. In the case of an activity affecting State wetlands, the Secretary shall inform the person of the extent of State wetlands involved and shall indicate the requirements to obtain a license from the Board of Public Works.

Section VI: Permits

Following the procedures set forth in Section 726 of Article 66C, of the Annotated Code of Maryland, including due notice and a public hearing in this county, the Secretary shall grant, deny, or limit a permit for the proposed work within thirty (30) days following completion of the hearing record.

Where the proposed activity involves the requirement for both a state wetlands license from the Board of Public Works and a private permit from the Secretary of Natural Resources, a joint public hearing may be held.

In granting, denying, or limiting any permit, the Secretary or his duly designated hearing officer shall consider the effect of the proposed work with reference to the public health and welfare, marine fisheries, shellfisheries, wildlife, economic benefits, the protection of life and property from flood, hurricane and other natural disasters, and the public policy set forth in the law. In granting a permit the Secretary may limit or impose conditions or limitations designed to carry out the public policy set forth in the law.

Appeal by the applicant or the appropriate county or municipality from the Departmental decision shall be taken in accordance with the provisions of Article 41, Section 237 of the Code and the Rules of the Board of Review of the Department of Natural Resources.

Any person aggrieved by a decision of the Board of Review made in response to an appeal for any decision taken under the private wetlands section of the wetlands act, may appeal such decision in the circuit court of this county. The court shall hear the case de novo, and the proceedings shall be a jury trial at the request of either party.

Section VII: Appeal of Order and Rules and Regulations

Any person aggrieved by this Order and the Rules and Regulations issued pursuant thereto who has a recorded interest in any portion of the lands so affected, may seek review by the Secretary of the Department of Natural Resources or any department or agency thereof, pursuant to Section 237 of Article 41 of the Annotated Code of Maryland. The complainant shall file a first request for review within thirty (30) days after the decision complained of, or, in the case of a failure to act within thirty (30) days after written request from the complainant to the official or body having the authority to act. The complainant shall file a complaint for further review within sixty (60) days after filing the first request for review as required by said Section 237.

Appeals to the Board of Review shall be filed with the Secretary to the Board within thirty (30) days after the complainant has been sent a copy of the decision on the complaint as provided for in Section 237 (1) of Article 41. In the event that no decision on the complaint

Section VII: Appeal of Order and Rules and Regulations (Continued)

has been sent to the complainant within the time prescribed by said Section 237(1), an appeal may be filed with the Board of Review within thirty (30) days from the time the decision should have been made pursuant to Section 237(1). The Board for good cause shown may extend the time within which appeal must be filed, provided that a motion for such extension is filed with the Secretary to the Board within thirty (30) days from the time filing of appeal is required by this Section.

Persons aggrieved from the decision of the Board of Review may within thirty (30) days after receiving notice thereof petition the Circuit Court in this county to determine whether such rules or regulations are confiscatory and therefore an unreasonable exercise of the police power. The court shall hear the case de novo and the proceedings shall be a jury trial at the request of either party.

Section VIII: Appeals of Secretary of Natural Resources Determination Regarding the Extent of State Wetlands Involved in an Application for an Activity Not Permitted by Rules and Regulations

Under the provisions of Section 726 of Article 66C of the Annotated Code of Maryland, any applicant aggrieved by a determination of the Secretary of Natural Resources regarding the extent of State wetlands involved in the proposed activity by virtue of a claim that a part of the area designated State wetlands is private because of the existence of a valid grant, lease or patent or a grant confirmed by Article 5 of the Declaration of Rights of the Constitution of Maryland, shall file a written objection to the Secretary's determination thirty (30) days after notice of the same. The Secretary shall institute a proceeding in the appropriate court in order to place in issue the question as to the efficacy and validity of the aforesaid claims by the applicant. The State shall bear the cost of such proceeding.

Section IX: Penalties

Under the provisions of Section 730 of Article 66C of the Annotated Code of Maryland, any person violating the Rules and Regulations validly promulgated by the Secretary shall be punished by a fine of not more than one hundred dollars (\$100.00) or imprisonment for not more than one (1) month, or both. Any person knowingly violating such Rules and Regulations may also become liable to the State for restoring any affected wetlands to its condition prior to such violation.

POLICY GUIDELINES FOR IMPLEMENTATION OF THE MARYLAND WETLANDS LAW

Purpose

To implement the public policy of the State to preserve its tidal wetlands and prevent their despoliation and destruction by unregulated dredging, dumping, filling and like activities, the Wetlands Permit Section uses the policy guidelines outlined below in the review and approval of these activities for State wetlands and Private wetlands in Maryland. Included are policy guidelines for recommendations of the Department of Natural Resources on all applications for Federal permits for any construction in the navigable waters of the State.

Regarding State wetlands, the purpose of the guidelines is to safeguard the public interest in protecting those natural resources that are in State ownership. Alteration of State wetlands is authorized only when such alteration clearly serves the overall public interest, taking into account the affects upon the varying ecological, economic, developmental, recreational and aesthetic values of such wetlands.

Regarding Private wetlands, the purpose of the guidelines is to permit reasonable use by the owner if such use is carried out under the conditions of the permit, and in accordance with the regulations where applicable, to protect the natural resource values in both the Private wetlands and the State wetlands.

The purpose of the guidelines concerned with the recommendations on applications for Federal permits is to provide a basis for objective comment on each application that reflects the effect of the proposed construction, or the use of the facility after completion, upon public access and use and the effect upon the water quality of the surrounding area.

General Requirements of the Wetlands Act

The dredging or filling of "State Wetlands", as defined by the Wetlands Act, to preserve access from riparian land to navigable water or to protect the shore from erosion requires the issuance of a license from the State Board of Public Works (An exception is the submerged lands under valid grant or patent, which are Private wetlands). Dredging or filling in "Private Wetlands", as defined by the Act, requires a permit from the Water Resources Administration except in those cases specifically noted as exemptions (See "Order Establishing Wetland Boundaries and Rules and Regulations, Section III C).

Maps delineating the upland boundary of tidal wetlands for each county are available at the county seat of each county in the tidewater region, and at the Wetlands Permit Section of the Water Resources Administration. Any landowner proposing to dredge or fill within the area of Private or State wetlands should consult with the Water Resources Administration on the procedure for obtaining a permit or license. A Federal permit is also required for such work within navigable waters. The landowner must apply to the Baltimore District, Corps of Engineers, U.S. Army, for a Federal permit. Concurrent application is recommended.

The following outlines when a license or permit is required.

- (1) A State Wetlands license must be obtained before any person starts any dredging or filling within State wetlands, except for
 - a. dredging of seafood products by licensed operators
 - b. harvesting of seaweed
 - c. mosquito control and abatement work approved by the Maryland Department of Agriculture
 - d. improvement of wildlife habitat approved by the Department of Natural Resources
 - e. maintenance of agricultural drainage ditches approved by appropriate Soil Conservation District. Construction of new drainage ditches within State Wetlands requires a State wetlands license.
- (2) Any dredging or filling in the area landward of the mean high waterline to the limit of tidal influence and supporting aquatic vegetation (termed Private Wetlands) may require, depending upon the nature of the work, Notification to the Secretary of Natural Resources or a Private wetlands permit.

The Secretary of Natural Resources has promulgated regulations concerning dredging, filling, removing or otherwise altering Private wetlands. The regulations do not grant any property rights, nor do they authorize any person to trespass upon or injure the property of another, nor do they excuse any person from complying with other applicable Federal, State, and local laws, regulations, or ordinances.

(3) Authorized Uses of Private Wetlands

The following uses do not require a Private wetlands permit and are permitted on Private wetlands if otherwise permitted by law:

- a. Projects or activities requiring approval of other state or local agencies or officials
 - 1) The maintenance of agricultural drainage ditches as approved by the appropriate Soil Conservation District.
 - 2) Alterations or modifications for mosquito control purposes as approved by the Maryland Department of Agriculture.
- b. Recurring activities
 - 1) Trapping, hunting, fishing and shellfishing.
 - 2) The cultivation and harvesting of shellfish, including such reasonable excavation in Private wetlands as normally is necessary in conducting such activities.
 - 3) The cultivation and harvesting of agricultural or horticultural products, including grazing and haying.

c. Permanent alteration or modification not requiring Notification

- 1) The construction and maintenance of walkways, foot bridges, duckblinds, docks, boathouses, boat shelters, and other similar structures, provided that said structures are so constructed on pilings as to permit the unobstructed flow of the tide and preserve the natural contour of the private wetland;
- 2) Construction and maintenance of tide gates designed to prevent the encroachment of salt water into agricultural drainage ditches;
- 3) The repair and maintenance of earthen dikes about a single residential dwelling, provided that such work does not involve the extension or increase in dimension of the existing dike.

d. Permanent alteration or modification requiring Notification

The Water Resources Administration is to be notified in writing before any person starts to dredge, fill or otherwise alter Private Wetlands in any county to carry out any of the following work:

- 1) Alterations or modifications which are customary and permitted by existing regulations for the conservation of soil, vegetation, water, fish, shellfish, and wildlife, including fur-bearing animals;
- 2) Making improvements necessary to preserve access to navigable waters, or to protect Private wetlands against erosion; provided that any improvement authorized involving either the dredging or filling of State wetlands may not proceed unless a license for filling or dredging has been issued by the State Board of Public Works under the provisions of Title 9, Natural Resources Article of the Annotated Code of Maryland;
- 3) The installation and maintenance of underground utilities, provided that the surface of the wetland is restored substantially to its original condition.

(4) Uses and Activities Prohibited on Private Wetlands Without a Permit

The following types of work may not be done except under the conditions of a Private Wetlands permit:

- a. No person may fill, place, dump, or discharge on the Private wetlands any loam, peat, sand, gravel, soil, or other similar substance; or any trash, garbage, debris, junk, or other polluting substance.
- b. No person may drain, excavate or dredge the Private wetlands or remove therefrom loam, peat, sand, gravel, soil, or other similar substance.
- c. No person may perform any act or use Private wetlands in a manner which would destroy the natural vegetation, substantially alter existing patterns of tidal flow, or otherwise alter or permit the alteration of the natural and beneficial character of such wetland.

- (5) Notification of Intent or Application for Permit and/or License to dredge, fill, remove, or otherwise alter State or Private wetlands

Except for the activities authorized under Section (3)a,b, or c, a person may not dredge, fill, remove or otherwise alter any Private wetlands in any county without first informing the Water Resources Administration and receiving approval or permit as applicable. A single form as prescribed by the Water Resources Administration shall serve either as Notification of Intent or Application for Permit and/or License.

a. NOTIFICATION of Intent

The form shall serve as the Notification prescribed in Section (3)d for activities not requiring permit and/or license. The proposed activity specified in the form may proceed upon advice from the Water Resources Administration.

b. APPLICATION for Permit and/or License

The form shall also serve as the Application for permit to conduct an activity on private wetland not permitted in Section (4) above, and for license to conduct any activity on State wetlands.

Policy Guidelines for Evaluating Applications

Dredging of Channels for Reasonable Riparian Access

The public policy of the State is to preserve the wetlands while providing for the rights of the riparian land owner for his access to navigable waters. Sections 9-202 and 9-306 describe procedures for obtaining state permission for making permanent changes to the wetlands in order to construct some artificial means for obtaining such access. The intent of the Act is carried out by the use of the following policy criteria in evaluating project plants submitted for recommendations or approval:

- (1) In cases where reasonable access for a riparian property owner can be provided directly from fast land, such an alternative shall be taken as opposed to the creation of a channel through the vegetated wetlands or filling for access.
- (2) In those cases where access is to be provided to a subdivision or other multi-home development or community, creation of one common access channel or pier is encouraged; thus, a centralized boating facility is preferable. In the case of isolated single family dwellings a pier from fast land to open water shall normally fulfill the right of reasonable riparian access.
- (3) The ownership of land bordering upon tidal waters does not carry with it the right to extend boat access inland by means of artificial channels.

- (4) Canals, channels, ponds or lagoons may not be excavated without the plans also being approved by the appropriate Soil Conservation District. As there are only a few types of such excavations that do not by law require a wetlands permit from the Department of Natural Resources, the Soil Conservation District is asked to verify the existence of such permit prior to their approval of the Sediment Control Plan. Ponds or other excavations within 100 feet of an existing shoreline might not be approved by the Soil Conservation Districts without the written approval of the Water Resources Administration.
- (5) The authorization by the state for any person to dredge a navigation channel through wetlands is coordinated to the maximum possible extent with the approval of such work by federal and local agencies.

Construction of Shore Erosion Protection Work

The owner of land bounding on navigable or tidal waters is entitled to protect his shore against erosion as described in Title 9 of the Natural Resources Article. To ensure this right, the Water Resources Administration uses the following criteria to review proposed projects in carrying out the state policy to preserve the wetlands while allowing the exercise of the right of a riparian owner to protect his shore against erosion.

- (6) The construction of bulkheads or other shore protection measures shall include only such filling as necessary for effective use of such measures and shall generally be located at the mean high water line or no further channelward than needed for proper tie-back emplacement, or in cases of a steep bank or cliff, no further channelward than needed to obtain a stable slope.
- (7) Where shore protection is needed and a marsh exists in front of an applicant's land, the shore protection structure shall be placed behind the marsh or low profile protection (preferably riprap) placed channelward of the marsh so that normal tidal flow into the marsh will be maintained.
- (8) Bulkheads shall be constructed with adequate returns to fastland or connected to adjacent shore erosion control structures, as may be applicable.
- (9) Because of their possible detrimental effect, shoreline protective structures may not be approved or recommended for approval in the following cases, except where there is no alternative means to achieve a necessary public benefit whose need significantly outweighs the harm done by the proposed work:
 - a. Marshland will be filled or otherwise destroyed.
 - b. Surface drainage channels will be filled or occluded.
 - c. Navigation will be adversely affected.
 - d. Unique or rare and endangered flora or fauna will be affected.
 - e. Important historical or archeological sites will be adversely affected.
 - f. Private oyster leases or natural oyster bars in adjacent open waters will be affected.

- (10) The provision of shoreline protection is encouraged in locations subject to severe erosion where conditions described in (9) above do not apply. In the review of such projects in locations determined by Maryland Geological Survey (where applicable) to have documented erosion, the Water Resources Administration recommends such protective works to be constructed in such way to have the minimum adverse effect upon the ecological, economic, hydrological, aesthetic, historical, and recreational values in the area.
- (11) Permits or licenses may not be granted for shore protective structures or filling unless adequate provision is made for drainage from inland areas. The construction of bulkheads and other protective structures across wetland areas shall provide only such filling as is necessary for the effective operation of the shore protection work and shall not be used for the creation of fast land from wetlands except in those cases where the proposed activity is water dependent and the filling complies with other pertinent policy in these guidelines.
- (12) Dredging for fill to be used for the efficient operation of shore erosion control work is allowed only where access to deposit land source material is not feasible or costs are excessive and it is determined not to have an extended or permanent adverse environmental impact. Dredging seaward of an existing bulkhead will alter the graduated bottom depth that helps dissipate wave energy. If dredging is used for fill, adequate compensation may be required by the state for this material. An example of cases where dredging to obtain backfill material may be permitted is where:
- a. A steep bank or cliff exists and the nearshore water depths are shallow which makes trucking-in or barging-in fill material infeasible.
 - b. Large trees or buildings prevent trucking-in fill material.

In both a and b above, however, if grading is to be done, trucking-in fill material usually becomes feasible. The fact that dredged material may be less expensive than trucked-in fill is not a major factor.

- (13) The shore protection measures used must satisfy the following criteria regarding quality and performance:
- a. When site conditions permit the use of a sloping bank stabilized with vegetation, with or without riprap, this method should be encouraged as an economical solution while preserving the natural conditions.

- b. Junk metal, tires, tree stumps and logs or other material that does not contain, and will not create pollutants, not placed as an interlocking structure shall not be used as part of any shore protection measures.
- c. If jetties or groins are used, they must be designed at a minimum length and height to serve the purpose intended and only placed in a location not harmful to navigation or to the land of nearby land owners and the general public. The Water Resources Administration requests a determination from the Maryland Geological Survey on such works. Such work shall be approved only if it does not interfere with public access, create adverse sand transportation patterns or adversely disturb the aquatic ecosystem.
- d. The approval by the Water Resources Administration of any shore protection measures does not constitute state certification of the adequacy of the fixed structures for the particular circumstances, or for any specified time period.

Other Construction Within Wetlands

To carry out the state policy in providing for the preservation of the wetlands as stated in Section 9-102, Natural Resources Article, the following criteria are used by this Administration in evaluating proposed construction within wetland areas and for preparing appropriate recommendations upon such projects. The preceding criteria deal with provision of access to navigable waters and with shore erosion protection. The following criteria deal with other activities as noted below.

- (14) The general policy is to allow dredging and filling only for those water-dependent activities on State or Private wetlands which are of such nature that they must be along the shoreline or in the wetlands in order to function. Wherever possible construction shall occur on fast land instead of involving the filling of wetlands.

An example of a water-dependent facility is a boat facility which must be along a shoreline and could not function in an area away from the shore.

Some examples, but not an all-inclusive list, of structures, facilities and activities that generally are not appropriate uses of wetlands are:

- Restaurants and businesses
- Residences, apartments, motels, hotels, trailer parks
- Parking lots and offices
- Spoil and dump sites
- Lagoons for sewage or industrial waste
- Industries and factories
- Storage areas for small boats
- Recreational areas requiring filling above tide level such as athletic fields, parking, picnic areas

- (15) The applicant shall clearly demonstrate that any proposed work which involves alteration or destruction of wetland areas is water-dependent and that there is no alternative upland site available and that the best public interest is served by this facility meeting a specific need clearly defined by the applicant.
- (16) No dredging of private wetlands to obtain fill shall be permitted, except where there is no alternative means to achieve a necessary public benefit.
- (17) All activities allowed on State or Private wetlands shall be undertaken in such a manner as to minimize adverse environmental effects.
- (18) It is the general policy of the state not to allow the filling of State Wetlands for the purpose of creating fast land.
- (19) In those cases where the best public interest justifies approval of the work, such projects involving the filling of Private or State wetlands including those involving the creation of fast land, approval of such project may be considered if the following conditions are satisfied:
 - a. The project cannot feasibly be undertaken on an adjacent or nearby fast land location.
 - b. It is not feasible to provide the service the project is intended to provide by an alternative means not involving the filling of wetlands.
 - c. The creation of fast land shall occur only in those areas adjoining existing fast lands.
 - d. No significant ecologically productive submerged wetlands, such as major finfish and shellfish spawning and habitat areas, shall be destroyed.
 - e. Fill utilized for the creation of fast land shall be obtained from a land-based source and not dredged from adjacent Private or State Wetlands.
 - f. The creation of fast land shall not obstruct navigational channels, adversely affect the public's use of the waters of the state including the public's right to navigation and fisheries, significantly affect major current patterns, or significantly alter the existing contour of the shoreline.

- g. In all projects involving the filling of State wetlands, compensation for fast land created in the public domain shall generally be provided to the State in an amount determined by the State Board of Public Works.
- (20) Title 9, Natural Resources Article, requires that in granting, denying or limiting any permit, the Department of Natural Resources shall consider the effect of the proposed work with reference to the public health and welfare, marine fisheries, shellfisheries, wildlife, economic benefits, the protection of life and property from flood, hurricane and other natural disasters, and the public policy set forth in Section 9-102 of that Article. In granting a permit or license, limitations or conditions may be imposed to carry out this public policy.
- (21) The policy regarding approval of earthen dikes for the protection of structures constructed in Private wetlands is as follows:
- a. The repair and maintenance of earthen dikes in Private wetlands are considered as works not requiring notification [Requirements of the Wetlands Act, 3(c)], provided that such work does not involve the extension or increase in dimension of an existing dike. The latter is considered under 3(d) or 4 of the Requirements, requiring notification and/or permit, depending upon the nature and magnitude of the work.
 - b. The construction of earthen dikes in Private wetlands about a single residential dwelling which is subject to encroachment by tidal waters, is considered under Requirement 3(d), as works requiring notification.
 - c. The construction of earthen dikes in Private wetlands about any structure, other than single residential dwelling, which is or may be subject to encroachment by tidal waters is considered under Requirement 4, as works requiring permit.
 - d. Favorable consideration is given to the construction of such earthen dikes as may be deemed reasonable to meet the state purpose and which will be of minimal adverse on adjoining wetlands.

(22) The policy with respect to road construction in or involving Private wetlands for timbering operations is to minimize adverse environmental impact with due consideration for the public and private benefits that may be derived from that industry. Such road construction for this purpose is that access required for the harvesting of ten (10) or more acres of forest to which reasonable direct access cannot be made available from fast land. The Department of Natural Resources gives favorable consideration to the construction of such access, temporary or permanent, preferably the former, under the following conditions:

- a. That the placement of the road is for the least distance across wetlands and tidal guts that is necessary to make the operation economically feasible; and recognizing property rights involved.
- b. That temporary road construction will be encouraged to the extent practicable, with such construction to consist of a roadbed no more than twenty (20) feet in width and an elevation no more than one (1) foot above adjacent wetlands and be built of excavated marsh or clean inorganic earth fill. While land source fill is preferable, excavation of adjacent marsh on either side for a surface width of eight (8) feet and to no greater depth than three (3) feet below marsh surface is acceptable.
- c. That permanent road construction will be permitted where the nature of the particular operation, including continued use for access to adjoining harvest areas, would make this environmentally and economically more feasible. This road construction may be for a roadbed no more than thirty (30) feet in width with elevation no more than three (3) feet above adjacent wetlands, and composed of excavated marsh. The excavation of adjacent marsh for a surface width of ten (10) feet and no more than five (5) feet in depth on either side of the roadbed is acceptable. The installation of culverts may be required to adequately handle flushing and drainage of the wetland areas affected by the construction. The crossing of natural streams shall be by piers structures.
- d. The temporary roads are those that are within the above described parameters, and will be used for no longer period than six (6) months, and for which provision will be made to remove any section of the roadbed that has temporarily closed any natural tidal gut so as to restore normal tidal flow when harvesting is completed.
- e. The permanent roads are those that are within the above described parameters and for which periodic maintenance is to be provided to insure the continued operability of any culverts and drainage ditches incorporated.

- f. The Department of Natural Resources recognizes that while temporary roads, as defined above, may be operationally of limited duration, the effect of the works constitute a more permanent alteration of Private wetlands. Accordingly, such proposed works require a permit. Proposals for permanent road construction, or for those temporary or permanent roads for access to less than or more than ten (10) acres of harvestable timber also require a permit.
- (23) The policy with respect to the construction of ditches and sumps in Private wetlands for the purpose of allowing water to flow to fast land to be used for irrigation, is to permit the construction of such ditches within the following guidelines:
- a. That the placement of the ditch is for the least possible distance across wetlands to allow a sufficient supply of water for irrigation purposes.
 - b. That the ditch be limited to four (4) feet in surface width and three (3) feet in depth at mean low tide.
 - c. That the sump adjacent to fast land be limited to a maximum surface area of 100 square feet and maximum depth of six (6) feet.
 - d. That spoil from such ditches be placed on either side within five (5) feet and in piles interrupted every 20 feet for a distance of five (5) feet, so as to permit the flow of water in the wetlands.
 - e. That the spoil from the sump be placed on fast land or within ten (10) feet of the sump if in wetlands.
 - f. The construction of irrigation ditches and sumps within these parameters is considered as permanent alteration not requiring notification or permit [Requirement 4(c)]. The construction of irrigation ditches and sumps not within each of the aforementioned parameters shall require notification and/or permit as the particular circumstances and magnitude of the works may dictate.
- (24) The policy with respect to drainage ditches for mosquito control or agricultural drainage is to allow the construction or maintenance of such ditches when approved by the Maryland Department of Agriculture, and by the appropriate Soil Conservation District. Such work shall be in accordance with the following guidelines. This policy is to allow such ditches for the purpose of draining agricultural and related rural lands. All work shall be in accordance with drainage practice standards and specifications of the United States Soil Conservation Service and shall conform to the following guidelines:

- a. Ditches shall extend onto private wetlands for the least distance required to insure an outlet for adjacent lands, and shall follow the alignment having the least disturbance to wetlands.
- b. Ditches in Private wetlands shall be sized according to good agricultural drainage practice and in no case shall exceed the following maximum size limitations:
 - 1) Top width -- 14 feet
 - 2) Depth -- 4 feet
 - 3) Side Slopes -- 1 to 1
- c. The spoil from such ditches shall be placed either:
 - 1) wherever possible on fast land; or
 - 2) in piles interrupted every twenty (20) feet for a distance of five (5) feet so as to permit the flow of water in wetlands; or
 - 3) in continuous rows with tide gates at intervals to allow water movement in wetlands, if diking is needed to protect uplands from tidal flooding.
- d. The fringe of natural vegetation at least 8 feet wide bordering both sides of the ditch shall be left intact as a filter strip without being disturbed or covered by spoil.
- e. Where appropriate, revegetate spoil areas by either:
 - 1) Stripping, stockpiling and placing original vegetation on spoil area surfaces; or
 - 2) Plant and/or seed to species suited to local soils and salinity conditions.

Review of Applications for Federal Permits

Coordination with Federal Agencies

The Department of the Army, acting through the Corps of Engineers is responsible for administration of federal laws requiring permits for any structure or work in or affecting navigable waters of the United States, the discharge of dredged material into such waters, or the transportation of dredged material for the purpose of dumping it into ocean waters. The policy, practice and procedure for this is described in the regulation 209.120 of the Corps of Engineers, U.S. Army, effective July 25, 1975. That regulation describes the authorization needed to comply with federal law for all structures and work except for the work pertaining to bridges and causeways, which authorization is administered by the U.S. Coast Guard under the Secretary of Transportation. The Baltimore District, Corps of Engineers, U.S. Army, and the Fifth Coast Guard District, Corps of Engineers, U.S. Army, and offices for their respective agencies responsible for work within the navigable waters in Maryland.

The Water Resources Administration of the Maryland Department of Natural Resources is responsible for reviewing all applications for federal permits and coordinate the comments of other state agencies into a single response as the official comment and recommendation from the State of Maryland on each permit application. The following pages describe this process of coordination and establishes the policy of the State in commenting upon work proposed within navigable waters. A part of this process is to notify persons that work involving dredging and filling within the tidal waters requires a permit or license from the State in addition to the federal permit.

A major step in coordination of activities was the signing of a Memorandum of Agreement between the Maryland Department of Natural Resources and the Baltimore District of the Corps of Engineers to jointly process and evaluate non-routine (major) project applications for Department of Army permits and State permits. This agreement provides a more efficient and effective permit program by avoiding duplication of effort, realizing economics in administration by the respective agencies, and eliminating unnecessary delays in processing applications. The Agreement applies only to projects in tidal waters and their adjacent wetlands referenced as Phase I in the revised Department of the Army 404 regulation (Federal Water Pollution Control Act; P.L. 92-500). Subsequent modifications to the Agreement will address Phases II and III as necessary.

The Corps of Engineers or the U.S. Coast Guard (in the case of bridge construction) issues a public notice on each application for a federal permit. Such notification includes a description of the proposed work and requests comments on the effect of the proposed activity upon factors affecting the public interest.

Water Quality Certificate

Under Section 401 of the Federal Water Pollution Control Act (P.L. 92-500; 86 Stat. 816, 33 USC 1411), any applicant for a federal permit to conduct an activity which may result in a discharge into navigable waters is required to obtain a certification from the State that the discharge will comply with the applicable water quality standards. The certification also pertains to the subsequent operation of the facility.

In cases where the Corps of Engineers or U.S. Coast Guard has stated that a water quality certificate is required, the Water Resources Administration issues or denies the water quality certificate, or places certain conditions on the activity. Even in public notices that do not state that a water quality certificate is required, but it is felt that the construction or use of the facility will create a discharge to the waters of the State, the Water Resources Administration reviews the proposed activity and issues or denies the water quality certificate, providing appropriate recommendations to the Corps of Engineers to implement water quality protection measures. The Administration

may solicit comments from interested parties and may schedule a public hearing on the project.

Failure to comply with the conditions of the Water Quality Certificate constitutes reason for cancellation of certification and legal proceedings may be instituted against the applicant in accordance with Section 8-1401 through 8-1501 inclusive of the Natural Resources Article, Annotated Code of Maryland (1974 Volume). In granting the Water Quality Certificate, the Water Resources Administration reserves the right to inspect at any time the operations and records regarding the project.

The evaluation of the proposed work for the purpose of preparing a water quality certificate is started promptly upon receipt of the public notice. Where a State Wetlands license or Private Wetlands permit is required, recommendations for the issuance or denial of the license or permit include the evaluation regarding the water quality certificate. This evaluation utilizes the existing information on water quality, supplemented by environmental information requested from the applicant and other water quality data gathered in the field when considered necessary by the Water Resources Administration.

Policy Guidelines for the Review of Federal Permit Applications Requiring a Water Quality Certificate or other State Approval

Recommendations on applications and the action taken on the issuance or denial of water quality certificates is done in accordance with the policy criteria described below.

(1) Compliance with water quality standards

- a. Water quality certificates for dredging and filling within State or Private wetlands are issued only after the application for the State wetlands license or Private wetlands permit has been recommended for approval by the Water Resources Administration, and is in accordance with the conditions of the license or permit.
- b. Applications for federal permits to construct, repair or make improvements to a marina with a capacity of more than four boats requires a water quality certificate. Applications for federal permits if no boat facilities are provided or for a boat facility providing for four or less boats does not require a water quality certificate if one is not called for by the Corps of Engineers.

c. A Water Quality Certificate for the construction or enlargement of a marina for a capacity more than four boats is based upon consideration of the following factors:

- 1) Facilities shall be provided for proper disposal on land outside the wetlands area for sanitary sewage, industrial discharges and solid waste.
- 2) Toilet facilities are to be located ashore as approved by the County Health Department to provide toilets and lavatories in sufficient numbers for boat occupants.
- 3) Grading and sediment control plans approved by the appropriate Soil Conservation District.
- 4) Regulations of the marina owner requiring users of the marina facilities to:
 - Avoid use of heads while boats are in port; and
 - Avoid discharge of non-degradable detergent, fuel, grease, oil, paint, or solid waste into water.
- 5) Maintenance program being carried out by marina owner to prevent soil or other materials from being washed into water.

(2) Location of Boat Facilities

The Water Resources Administration is guided by the following criteria in reviewing the construction or enlargement of marinas.

- a. In planning the construction of piers for small boats, the need for protecting safety and promoting the public welfare governs the recommendations of the Department of Natural Resources in the issuance or denial of a permit. As a matter of policy, in the absence of overriding public interest, favorable consideration is given to applications from riparian owners for permits for piers for small boats if such piers do not create possible obstructions to the public's use of the waterway and to the neighboring owner's access to the waterway.
- b. The facility shall be located so as not to interfere with existing or proposed bridges, with water recreation areas or with commercial fishing areas.
- c. The width and depth of channels must be sufficient to permit the safe movement of boats. In reviewing an application, one objective is to limit the amount and frequency of expected maintenance dredging. In terms of draft requirements, maintenance dredging shall be compatible with ambient depths and channel access routes.
- d. Due to better flushing and access to open water, location in the lower portions of a tidal tributary is preferable and encouraged over a location in the headwater areas. Similarly, proliferation of boating facilities within the upper reaches of existing artificial (canal) systems is discouraged.

- e. A location which does not require crossing a vegetated wetland for access to the facility is preferable to a site which requires such a crossing. If there is no feasible alternative to the latter, the preferred means of crossing is a piered structure or, if not, a culverted causeway of minimum dimensions. The approval of such a causeway is dependent upon such factors as distance, the capability of the marsh to support such a structure, and the potential adverse impact on the remaining marsh.
- f. In those cases where a marina or docking facility is to be provided to a multi-home development or community, a centralized facility is encouraged.

(3) Non-Interference Criteria

- a. Investigation is made by the Water Resources Administration to assure that the plans of the proposed work show that the new facility will avoid endangering or blocking other boat traffic traversing the area or access to nearby piers.
- b. Except in unusual locations deemed applicable by the Administration, no structure is to extend beyond any of the following limits:
 - 1) Three hundred (300) feet beyond shoreline at mean high tide, existing at time these improvements are made.
 - 2) The near boundary of a defineable channel.
 - 3) In the absence of a defined channel, not more than one-third the width of the waterway surface at mean high water, and in no case extending into or across a natural channel normally used by boat traffic.
- c. Where proposed construction will conflict with existing facilities, the Water Resources Administration may recommend the limits of construction to cause the least interference with such existing or possible future construction.
- d. Where existing piers do not already fix a pattern of pier location along a portion of a shoreline, the following method is used for defining divisional lines between the water areas off-shore of adjoining properties, unless otherwise established by applicable law:

With straight shorelines, the divisional lines shall either be the extension of the property lines, or be lines approximately perpendicular to the shoreline starting at the property line.

With irregular shorelines, a base line shall be drawn between the two corners of each lot at the mean high water line and lines erected perpendicular to such base lines at each such property corner. The angle formed between the two perpendiculars starting at such property corner shall be bisected and the bisectors shown as divisional lines.

Piers, mooring piles or other construction shall normally be confined to the water area at least ten (10) feet away from such divisional lines.

Appendix S
Coastal Zone Management Program Personnel

Coastal Zone Unit Staff

1. Ken Perkins, Program Director

Education: B.A., State University of New York at Binghamton (Harpur College), biology; M.S., Auburn University, fisheries biology

Related Work Experience: Assistant Administrator, Energy & Coastal Zone Administration; Administrator for site acquisition, Power Plant Siting Program; Ocean Technology Project Officer, Office of Naval Research

2. Charles Bookman, National Interest & Federal Consistency

Education: B.A., Columbia University, geography; Master of Marine Affairs, University of Rhode Island, ocean planning & management

Related Work Experience: Research assistant and technician, Lamont-Doherty Geological Observatory

3. Earl Bradley, Land & Water Uses

Education: Sc. B., Brown University, engineering; M.A., Case Western Reserve University, science, technology and public policy; M.R.P., University of Michigan, regional planning

Related Work Experience: Research assistant, University of Michigan Sea Grant Program; advanced study program at Institute for Study of Health & Society

4. Scott Brumburgh, Public & Local Government Participation

Education: B.S., Missouri Valley College, sociology; M.S. expected from Cornell University, agricultural economics

Related Work Experience: Peace Corps Water Resources Extension Agent; research assistant, New York State Cooperative Extension Service

5. Mark Bundy, Aquatic Critical Areas

Education: B.S., Ohio State University, biology; M.S., Ohio State University, fisheries ecology

Related Work Experience: U.S. Naval Academy, instructor; marine research for Battelle Laboratories

6. Thomas Chaney, Coastal Zone Boundary

Education: B.S., Ohio State University, zoology; M.S., Wright State University, biology; M.S., University of Pennsylvania, regional planning

Related Work Experience: Researcher for the Natural and Historical Research Association and for Jack McCormick & Associates; teaching assistant, Wright State University; research associate, Charles Kettering Research Laboratory
7. Joseph Donovan, Coastal Facilities Review Act, Implementation; Major Facilities Study

Education: B.S., University of Connecticut, civil engineering, sanitary engineering and urban planning

Related Work Experience: Operational petroleum engineer, Texaco Inc.
8. Elder Ghigiarelli, Geographic Areas of Particular Concern

Education: B.A., Johns Hopkins University, geography and environmental engineering; M.S., University of Maryland, resource management

Related Work Experience: Technical assistant, DNR Program Planning and Evaluation Section
9. Louis G. Hecht, Jr., Baltimore Metropolitan Coastal Area Study; Major Facilities Study

Education: B.S., University of Michigan, resource planning and conservation; M.S. expected from University of Maryland, resource management

Related Work Experience: Technical assistant and natural resources planner, DNR Water Resources Administration; intern, Conservation Foundation; technical and planning assistant, DNR Program Planning and Evaluation Section
10. Ed Hollis, Aquatic Critical Areas Inventory

Education: B.A., Western Maryland College, biology; M.S., University of Maryland, fisheries biology; Ph.D. course work, University of Maryland, zoology

Related Work Experience: Biologist, Federal Fish and Wildlife Service; Tidewater Fisheries Commission; project evaluation head, DNR Program Planning and Evaluation Section
11. Margaret Johnston, Authorities and Organization

Education: B.A., Ohio Wesleyan, zoology; M.S. expected from University of Michigan, natural resources policy and administration

Related Work Experience: Review E.I.S. statements for Office of Environmental Project Review, U.S. Department of the Interior

12. Wayne Klockner, Upland Natural Areas Study

Education: B.S., Cook College, Rutgers University, environmental planning

Related Work Experience: Field crew member and manager, Upland Natural Areas

13. Chris Ostrom, OCS Studies & Ocean Dumping Analysis

Education: B.A., University of California, Santa Barbara, biology; M.S., Florida State University, biological oceanography

Related Work Experience: Biology and chemistry teacher; research on biological and geological impacts of continental shelf oil activities (Offshore Ecology Investigation)

State Agency Liaisons

1. David Boeschert, Department of Agriculture
2. Donald Elmore, Department of Health & Mental Hygiene, Environmental Health Administration
3. Paul Farragut, Department of Transportation
4. Buzz Hausner, Department of State Planning
5. William Pate, Department of Economic and Community Development

Local Government Technical Coordinators

1. Bill Carroll, Harford County
2. Tom Ervin, Anne Arundel County
3. Carey Hinton, Baltimore County
4. Allain Jaramillo, Baltimore City
5. Vivian Marsh, Calvert and St. Mary's Counties
6. Edward Phillips, Somerset, Wicomico and Worcester Counties
7. Michael J. Rubala, Charles and St. Mary's Counties



MARVIN MANDEL
GOVERNOR

Appendix T

MARYLAND DEPARTMENT OF STATE PLANNING

301 WEST PRESTON STREET
BALTIMORE, MARYLAND 21201
TELEPHONE: 301-383-2451

VLADIMIR A. WAHBE
SECRETARY OF STATE PLANNING

DEPARTMENT OF STATE PLANNING
and
DEPARTMENT OF NATURAL RESOURCES
MEMORANDUM OF UNDERSTANDING
on
COASTAL ZONE MANAGEMENT

This Memorandum constitutes an understanding between the Department of State Planning and the Department of Natural Resources concerning development and implementation of a program to protect, to conserve, and to properly utilize the coastal resources of the State. This understanding is based upon each agency's statutory authorities and commitment to appropriate, planned development and conservation of the land surrounding and covered by Chesapeake Bay, and Maryland's Atlantic Coast, bays, and submerged lands to the extent of State jurisdiction. The Department of State Planning derives its primary authority from Article 88C and 41 of the Annotated Code of Maryland. The Department of Natural Resources' primary authorities derive from the Natural Resources Article of the Annotated Code of Maryland.

The following points of agreement have been reached to clarify the activities of the Department of State Planning and the Department of Natural Resources to conduct an efficient and effective Maryland Coastal Zone Management Program to fulfill the State's responsibilities under the federal Coastal Zone Management Act.

POINTS OF UNDERSTANDING

Under Article 88C (2) (b) of the Annotated State Code, the Department of State Planning is responsible for preparation of plans for development of the State embodying policy recommendations in regard to the economic and physical development of the State. The series of plans for development of the State include recommendations for the most desirable general pattern of land uses within the state; recommendations concerning the need for and proposed general location of major public and private works and facilities; recommendations of the Department of State Planning concerning current and impending problems as may affect the State as a whole. The Coastal Zone Management Program will operate within the framework of the plans prepared for the development of the State, pursuant to Article 88C, Section (2) (b), once those plans are filed by the Governor.

Goals and Objectives

The Department of State Planning agrees to utilize the goals and objectives of the Coastal Zone Management Program, once approved, in the execution of the Department's mandated duties, powers and authorities including generation of plans for development of the State. The Department of Natural Resources agrees to incorporate into the Coastal Zone Management Program the goals and objectives of the Department of State Planning plans for the development of the State, prepared pursuant to Article 88C, Section (2) (b). Both Departments agree to cooperative and supportive efforts in the implementation and enforcement of their respective programs.

Critical Areas

1. The Department of Natural Resources agrees to provide the coastal jurisdictions with suggestions of potential areas of critical State

concern and recommended management techniques to assure compatible uses in these areas. In accord with the Critical Areas Guidelines, local jurisdictions forward these suggestions to the Department of State Planning as either official recommendations of the local jurisdiction or as unaccepted suggestions.

2. The Department of State Planning agrees to consult with the Department of Natural Resources in the evaluation of the critical area recommendations and suggestions which it receives from the local jurisdictions. This evaluation will consider both the official recommendations and those sites suggested to, but not accepted by, the local jurisdictions.
3. Once the Secretary of State Planning has designated areas of critical State concern, those designated for the purposes of preserving, conserving or utilizing coastal resources will become Geographic Areas of Particular Concern in the State Coastal Zone Management Program.

Intervention in Land Use Proceedings

1. The Department of State Planning agrees to utilize the goals, objectives, and policies of the State's approved Coastal Zone Management Program in intervention in land use proceedings.
2. The Department of Natural Resources agrees to provide technical advice and expertise to the Department of State Planning for any intervention action concerning the State's coastal resources.
3. The Departments will make every reasonable effort to establish a mutually acceptable and jointly supported position on intervention cases concerning activities within the coastal zone.
4. Intervention by the Department of State Planning in any land use proceeding will be carried out under the provisions of Article 88C (2) (q), Annotated Code of Maryland (1969 Repl. Vol., 1974 Cum. Supp.) and published "Stan-

dards for Intervention."

5. The Department of State Planning will honor any request for intervention by the Department of Natural Resources. The Department of State Planning will use the goals and objectives of the Coastal Zone Management Program in determining when intervention is advisable. The final decision to intervene resides with the Secretary of State Planning.
6. The Department of State Planning will provide the Department of Natural Resources with periodic lists of actions being considered for intervention so that the Department of Natural Resources may alert the Department of State Planning to coastal management issues that may be involved.

Plan and Permit Review

1. The Department of State Planning agrees to utilize the policies of the State's adopted Coastal Zone Mangement Program in its review of permit applications and local plans. Every effort will be made to assure that local plans are compatible with the State's policies for management of coastal resources.
2. Upon the request of the Department of State Planning, the Energy and Coastal Zone Administration agrees to provide the Department of State Planning information and technical analysis necessary to determine if a plan or permit application is consistent with State Policy regarding coastal zone management.

Data Management

1. The Department of State Planning will provide the Department of Natural Resources access to the Maryland Automated Geographic Information System. Use of the MAGI system will be under terms detailed in individual agreements.
2. The Energy and Coastal Zone Administration will advise the Department of

State Planning of any data it has generated, or new or updated data it has received, in support of the Coastal Zone Management Program. The Energy and Coastal Zone Administration will make every effort to assure that such data will be consistent with data referencing standards established for use of the MAGI system. The Department of State Planning will incorporate all relevant data in the MAGI central file.

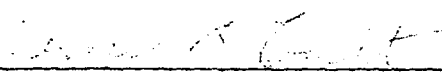
Relations of Employees

1. Once Administrative grants are available to the Maryland Coastal Zone Management Program, funds will be provided by contract to each coastal county for the purpose of hiring one technical assistant where that need is determined to exist. The responsibilities of the local coastal management technicians, under the supervision of the counties, are limited to implementation of the State Coastal Zone Management Program.


The Department of State Planning maintains regional offices throughout the State to provide planning assistance to local jurisdictions and to provide a local perspective on planning activities of the Department.

- Both Departments intend to foster a cooperative, mutually supportive working relationship between the Department of State Planning's regional planners and the coastal technical assistants. The technical assistants will pursue their coastal zone management duties in the manner compatible with the planning and local assistance duties of the Department of State Planning's regional planners. The Department of State Planning's regional planners will seek the advice of the coastal technical assistants regarding the impact of planning decisions on natural systems and resources.
2. Whenever feasible technical assistants hired by the counties with funds from the Department of Natural Resources will share office facilities with Department of State Planning Regional Planners.

IN WITNESS THEREOF, the contents of this Agreement have been
accepted and approved by the Department of Natural Resources and the
Department of State Planning this 25th day of February, 1977.



James B. Coulter, Secretary
Department of Natural Resources



Vladimir A. Wahbe, Secretary
Department of State Planning